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ABSTRACT

This guide outlines the suggested program for 1988 for the Texas Reading Club, an activity sponsored cooperatively by local libraries and the Texas State Library to encourage children and their parents to read and use the library. The general theme, "Trailblazers, Stargazers," focuses on people who do new things, go new places, experiment, explore, and create. The guide provides activities, crafts, and lists of books and films on 10 aspects of the theme: general overview activities, exploration by sea, exploration by land, inventors, space exploration, scientists, artists, authors and poets, musicians, and exploration by air. An extensive bibliography and a filmography are also provided, as well as information on publicity, bulletin board ideas and patterns, and clip art for publicity. It is noted that "A Librarian's Handbook for the Texas Reading Club" provides additional guidance for the administration and implementation of a reading club program. (EW)

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TRAILBLAZERS, STARGAZERS

Program Guide

for the

Texas Reading Club, 1988

Written and illustrated by

Marie Noe

Sponsored by

Library Development Division

Texas State Library

1988

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Filmography: leaves 101-110.

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TABLE OF CONTENTS

Introduction..... 1

Publicity..... 3

Activities

Trailblaze, Stargaze! (general overview activities)..... 5
Watch out for sea monsters! (exploration by sea)..... 11
Let's hit the trail! (exploration by land)..... 23
They said it would never work! (inventors)..... 29
Blast off to adventure! (space exploration)..... 39
Pass me that test tube! (scientists)..... 49
Draw me a picture! (artists)..... 53
Write, Write, Write! (authors and poets)..... 61
Hum a few bars! (musicians)..... 67
It'll never fly, Orville! (exploration by air)..... 73

Bibliography..... 81

Filmography..... 101

Appendix A: Bulletin Boards

Appendix B: Clip art

INTRODUCTION

Welcome to the 1988 Texas Reading Club. This year's theme is "Trailblazers, Stargazers." It is about people who do new things, go new places, experiment, explore, and create. Through the reading club the participants will meet these people in books, films, and activities. They will become trailblazers and stargazers themselves as they try new things.

This program guide is designed to provide you with ideas for activities, crafts, bulletin boards, and materials appropriate for this year's theme. Use it as an inspiration for your own ideas.

Another Texas State Library publication, A LIBRARIAN'S PLANNING HANDBOOK FOR THE TEXAS READING CLUB, provides guidance for the administration of a reading club with instructions and bibliography on planning, scheduling, budgeting, and presenting such a program.

Each activity in this guide is provided with a suggested grade level. However, with a little adaptation, most can be used with any age child. Most activities require little preparation and can be done using materials which are easily obtainable. Any pattern required for a project is included. All activities are also provided with a suggested supervision ratio. A supervision suggestion of minimum tells you that the activity or craft can be done with one helper or, in some cases, no helpers. Younger children and messier activities will require more helpers. This is a good opportunity to utilize volunteers in your programming.

Each program section will include activities, crafts, book ideas, film ideas, and a listing of a few of the many people to consider when planning your program.

This guide is set up in six sections. The first section covers advertising ideas. The second contains activities and crafts for various types of trailblazers and stargazers. Sections three and four contain the complete bibliographic material for suggested books and films. The fifth section contains bulletin board ideas and patterns. And the last section has clip art to use for publicity.

Please feel free to adapt any of the ideas or patterns in this guide to fit the needs of your particular program.

PUBLICITY

The first step to be taken in planning your summer reading program is publicity. Without good publicity your program will fail, no matter how wonderful your activities and crafts. Start your publicity early enough to allow your entire community to get the message. Your LIBRARIAN'S PLANNING HANDBOOK FOR THE TEXAS READING CLUB describes publicity techniques on page 33. Following are some content ideas from this year's theme.

POSTERS: Use the bulletin board pictures or the clip art to liven up your posters. These pictures are included in this guide. When the children come to the library in summer, they will see old friends.

T.V. AND RADIO: Sing one of the songs suggested in this guide over the radio while you promote your program. On a television public service do one of the puppet plays. Leave off the last few lines and tell the audience that they can find out the ending at the library.

HANDOUTS: You can duplicate a large number of handouts to distribute at schools, clubs, and public places. Duplicate the circle puzzle in this guide or the scavenger hunt list. Have a contest to see how many children can complete the puzzle or list before they come to the summer program.

PERSONAL VISITS: Be creative! Dress as an explorer and go to the schools and clubs. Try playing one of the games suggested or singing some of the songs. This can be a special time for the children and can give them something to look forward to when they come to the library.

NEWSPAPERS: Contact your local paper concerning information on what can be put in their publication. If you can find a willing reporter you can have him interview you under the name of a famous trailblazer or stargazer.

TRAILBLAZE, STARGAZE

There are so many areas that can be covered by this topic that you may ask yourself, "Where should I begin?" Think of the many people who have traveled to a new place like the immigrants to America. Think of people who have seen things in a different way such as poets and artists. These can be called trailblazers and stargazers. To become a trailblazer or a stargazer one must use one's imagination. Without it none of the people mentioned in this guide would be known. Begin the program by inspiring the children to explore and to imagine. Games of "Let's Pretend" are great for stretching one's imagination as is cloud watching.

WHO AM I?

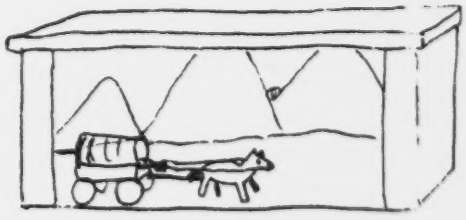
Materials: Index cards or slips of paper, pins
Grade Level: 3-up
Preparation Required: Write various names on the cards
Supervision Required: Minimum

Pin the names on the back of the children as they come into the room. Don't tell them what name they are wearing. Now have them pair up and let their partner see their name. By asking questions about their name have the children figure out who they are wearing.

DIORAMA

Materials: shoe box, paper, scissors, scrap material, glue
Grade Level: K-4
Preparation Required: none
Supervision Required: 1 helper for every 5 to 7 children

A diorama is a great medium to display scenes from famous explorations or happenings. Remove the front of the shoe box. Cut miniature figures from paper or magazines and glue them in the shoebox to make a scene.



CLOUD GAZING

Materials: none (paper and pencil optional)
Grade Level: K-4
Preparation Required: none
Supervision Required: Minimum

Go cloud gazing. Can you see animal shapes? Draw your favorite.

WHAT IF?

Materials: none
Grade Level: K-up
Preparation Required: none
Supervision Required: minimum

What would have happened if Columbus had not landed in America? What would have happened if Ben Franklin had decided that it was too wet to fly his kite? What if Jacques Cousteau were afraid of the water? Make up different endings to these adventurers.

EXPLORE THE LIBRARY

Materials: list for each child, pencils
Grade Level: 4-up
Preparation Required: copy enough lists for everyone
Supervision Required: minimum

It's time to explore. Take a list and find out the following items. This can be done over a period of a few weeks if you have a large group. Compare answers.

EXPLORER'S LIST

1. How many doors are there in the library? _____
2. What is the smallest numbered book on the shelves? _____
3. What color is the 1987 Guinness Book of World Records? _____
4. How many drawers are there in the card catalog? _____
5. What is the librarian's middle initial? _____
6. How many steps is it from the front door to the bathroom? _____
7. How many clocks can you find? _____
8. Find a book with a green cover. What is it? _____
9. How many babies can you see? _____
10. How many light switches can you find? _____
11. Where is the pencil sharpener? _____
12. How many typewriters are in the library? _____
13. Where is the water fountain? _____
14. What is the title on the 1st card in drawer #1? _____
15. What color are the librarian's eyes? _____
16. What is the library's address? _____
17. What is the library's phone number? _____
18. How many desks can you find? _____

Variations: 1. Work in pairs. 2. Set a time limit. 3. For younger children, explore outside. Find twigs, animals, etc.

GOING TO A NEW WORLD

Materials: crayons, paper, pencils
Grade Level: K-up
Preparation Required: none
Supervision Required: minimum

Pretend you are going to live in a land that has just been dis covered. Draw pictures of what you think you will find there.

BOOKS FOR TODAY

Ahlbergh, Janet and Allen. Jeremiah in the Dark Woods
Artman, John. Explorers
Ashabranner, Brent and Melissa. Into a Strange Land
Baum, L. Frank. The Wizard of Oz
Blos, Joan W. Martin's Hats
Bornstein, Ruth. Jim
Bornstein, Ruth. Of Course a Goat
Boynton, Sandra. If at First
Burningham, John. Where's Julius?
Cervantes, Miguel de. Don Quixote
Choose-Your-Own-Adventure Books
Cohen, Barbara. Gooseberries to Oranges
Cummings, Pat. C.L.O.U.D.S.
DeLage, Ida. Pilgrim Children on the Mayflower
DePaola, Tomi. Oliver Button is a Sissy
de Regniers, Beatrice S. What can you do with a Shoe?
The Discoverers
Duncan, Riana. If you were A--
Evard, Gaetan. How I Cured Don Quixote, By Doctor Sancho Panza
Goennel, Heidi. When I Grow up
Grant, Neil. Explorers
Kudrna, Charlene Imbior. To Bathe a Boa
McGovern, Ann. The Secret Soldier
Marron, Carol. When Great-Aunt Zelda Comes
Maybery, D.L. George Lucus
Maybery, D.L. Steven R. Spielberg
Miles, Betty. Sink or Swim
Rosenberg, Maxine. Making a New Home in America
Rosten, William. The Danger Maze
Sandak, Cass R. Explorers and Discovery
Sharmat, Marjorie. Gila Monsters Meet you at the Airport
Shaw, Charles G. It Looked like Spilt Milk
Shecter, Ben. Hester the Jester
Snyder, Zilpha. The Changing Maze
Steig, William. Dr. De Soto
Taro, Oda. Panda the Explorer
Taylor, Mark. Henry the Explorer
Thatcher, Alida. Perilous Journey to the Top
Verne, Jules. Around the World in 80 Days
Wegen, Ron. The Sky Dragon
White, E.B. Stuart Little

CIRCLE WORD PUZZLE

m o z a r t c b p z r d a v i n c i a
c h r i s t o p h e r c o l u m b u s
o l o m k o n z a a p o e s t y e r i
o e a r n o l g p d l u m n r r l a m
k r l e k o r e o o t s n d n n l m o
m i d k a i h b m a h t z r o o m k v
o c a r m s t r o n g e m a b s o m k
g s m m p o o e r i i a n d e r s e n
o s u j r r z n s r r u p n l e o r p
o o n e k a r d e d w t t o h d t h e
d n d o h s t a n l e y d i s n e y a
a o s n h f a n e a r o n o t e r s r
l h e n r y f o r d r z m s k h a r y
l a n g s t e v e n s p i e l b e r g

Can you find the following trailblazers and stargazers in the puzzle? They are written forwards, backwards, up and down, sideways, and diagonally.

Drake
Andersen
Poe
Steven Spielberg
Henderson
Disney
Ericsson
Wright
Christopher Columbus
Da Vinci
Roald Amundsen
Peary
Cook
Asimov
Grimm
Aesop
Stanley
Morse
Nobel
Henry Ford
Shepard
Mozart
Goodall
Bell
Clark
Cousteau
Armstrong
Byrd
Lang
Brendan
Boone
Aldrin

WATCH OUT FOR SEA MONSTERS!

Today is a day of sea exploration. Men of old sailed into the unknown facing dangers such as sea monsters and the possibility of falling off the edge of the world. They braved the oceans in ships that would be considered dangerous today. Today's sea explorers set out in submarines to explore beneath the surface of the waters. Tomorrow's explorers will live and work under the waters. Get ready to set sail!

THE WORLD IS FLAT!

Materials: Paper, crayons or colored pencils
Grade level: K-up
Preparation Required: Explain to the group that the world was once thought to be flat and the seas full of monsters.
Supervision Required: Minimum

Have the group draw their idea of what the edge of the world would look like if the world really was flat. Don't forget to include the sea monsters!

HOW ABOUT A SONG?

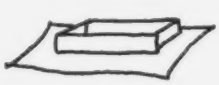
Materials: None
Grade Level: K-4
Preparation Required: None
Supervision Required: Minimum

Sing a song of the sea! Try "Row, Row, Row Your Boat" or "Sailing, Sailing, Over the Bounding Waves" or "There's a Hole in the Bottom of the Sea."

BUILD A BOAT!

Materials: Matchboxes, foil, paper, toothpick, clay
Grade Level: K-4
Preparation Required: You may wish to pre-cut the foil and paper
Supervision Required: 1 helper for every 4 to 5 children

Follow the pattern to build a matchbox boat. Have a race!



1. Wrap matchbox in foil

2. Put just enough clay in to hold toothpick

3. Put toothpick through paper to form sail

4. Put sail in clay

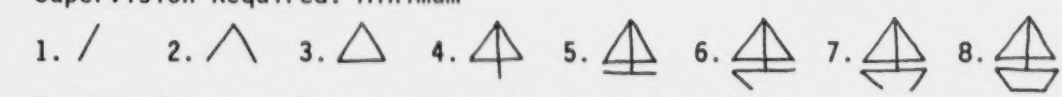
ROLE PLAYING TIME!

Materials: None
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

Divide the children into two groups. One group is to be the Americans while the other group will be the visitors. Give the visitors a question to ask the Americans, such as "Where is the best place to catch fish?" Since they don't speak the same lan guage they must communicate in some other manner. Questions can also be asked about the room you are in, such as "Where is the nearest exit?" After a few times switch roles.

DRAW A BOAT!

Materials: Chalkboard, chalk
Grade Level: 3-6
Preparation Required: Demonstrate the line drawing below before starting the game.
Supervision Required: Minimum

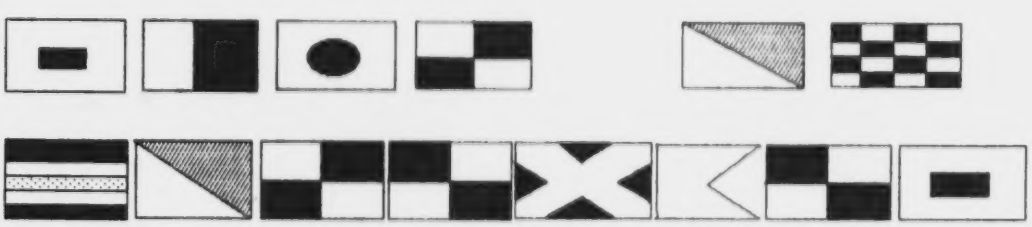


Use the diagrams above to demonstrate the line drawings.
Divide the children into two groups. This is a race. The first person in the line goes to the board and draws the first line in the boat. He returns and hands the chalk off to the next person who draws the second line. Continue until the ship is done.

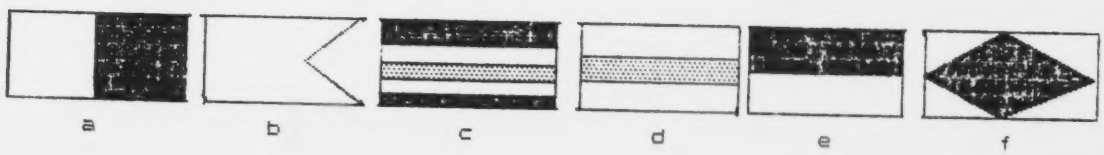
CODE MESSAGES

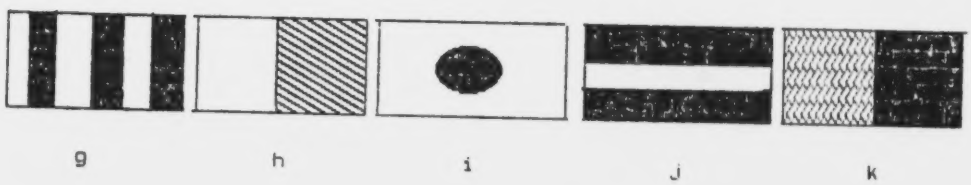
Materials: Handout sheet of flags for each child.
Grade Level: 4-up
Preparation Required: Duplicate code and message for each child.
Supervision Required: Minimum

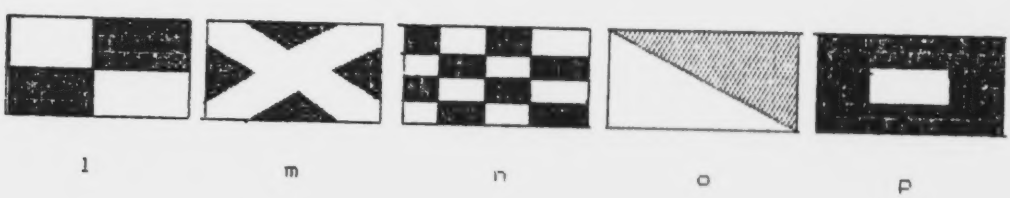
Decipher the message!

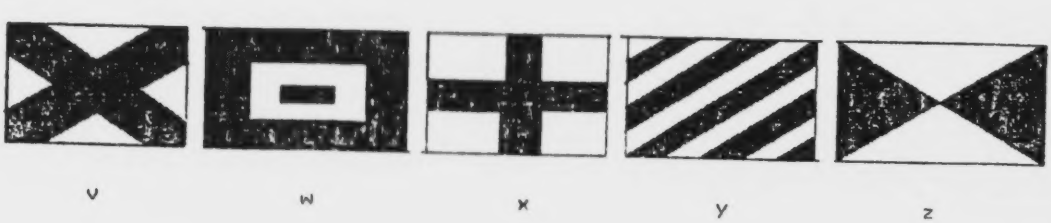


FLAG CODE KEY







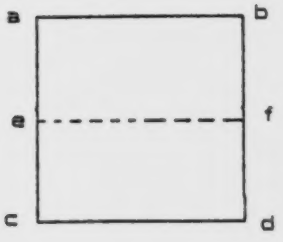


FOLD AN ADMIRAL'S HAT

Materials: Paper (newspaper size), feathers (optional)
Grade Level: 3-6
Preparation Required: Practice before presentation!
Supervision Required: 1 helper for every 3 to 5 children

1. Fold paper along line E-F (Fig. 1) This gives you Fig. 2.
2. Fold down the corners E and F along the dotted lines.
3. Fold up the bottom strips, A-B and C-D beneath the triangles and bend over the corners A, B, C, and D, and you have Fig. 4.
4. Open it out, at the same time folding it along the dotted line E-F. Your paper should look like Fig. 5.
5. Fold the lower front corners A-C up along the dotted line G-F. Then fold the rear lower corner B-D in the same manner. This gives you Fig. 6. Add a feather if you wish.

1.



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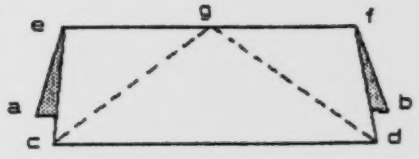

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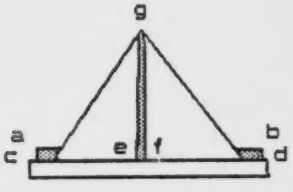

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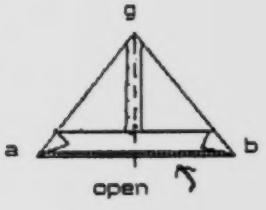
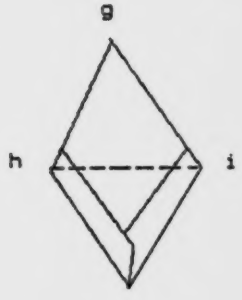
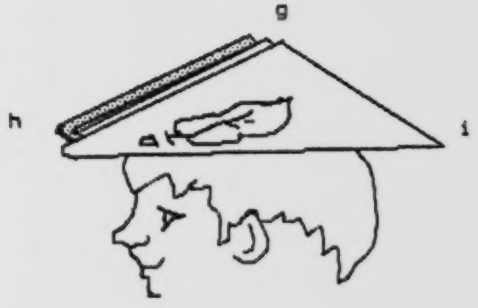


5.



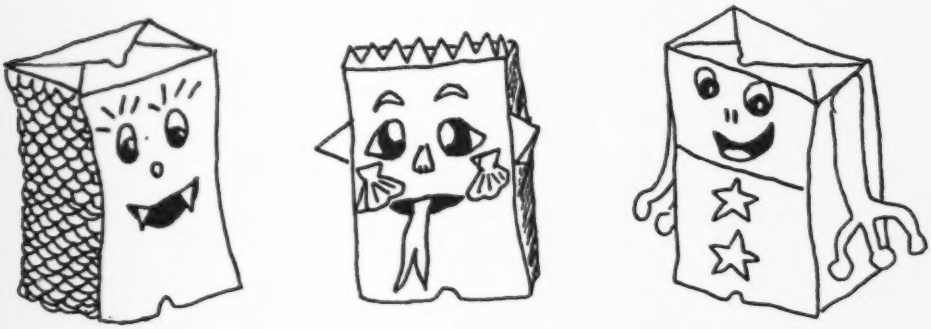
6.



SEA MONSTERS!

Materials: Paper sacks, tissue paper, scrap material, crayons, glue, scissors,and anything else you have
Grade Level: K-4
Preparation Required: None.
Supervision Required: 1 helper for every 4 to 5 children

Using whatever material available have the group make sea monster masks. Model them and vote on the most frightening, the funniest, the silliest, and the most colorful.
Samples:



HAVE A PUPPET PLAY

Materials: Two puppets, stage
Grade Level: K-up
Preparation Required: Practice before presentation.
Supervision Required: Minimum

ENTER TWO PUPPETS

#1: Hey Tony! We have to name that new land that Columbus found.
#2: What will we call it?
#1: Let's name it after someone!
#2: How about my great-uncle Felix?
#1: No. Let's name it after Amerigo Vespucci. He's a good man.
#2: So what will we call it? Vespucci Island?
#1: No.
#2: What about Vespucciland?
#1: No.
#2: I know! Vespucciville!
#1: NO. That's too long. How about America?
#2: America? Hmmmmm. Sounds pretty good. It might work.
#1: Do you think everyone else will like it?
#2: I have a feeling they will!
#1: Anyway, it sounds better than Vespucciville!
EXIT

16

THE UNDERWATER HOME

Materials: Paper, crayons, colored pencils
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

Have the group imagine that they are explorers of the future and live in an underwater environment. Have them draw their home and the things around them.

Variations: 1. Use a large sheet of butcher paper and let the group do one large picture. 2. For older children: Have them design their own underwater home. Encourage them to add unusual items like garages for their submarines, viewing ports, etc.

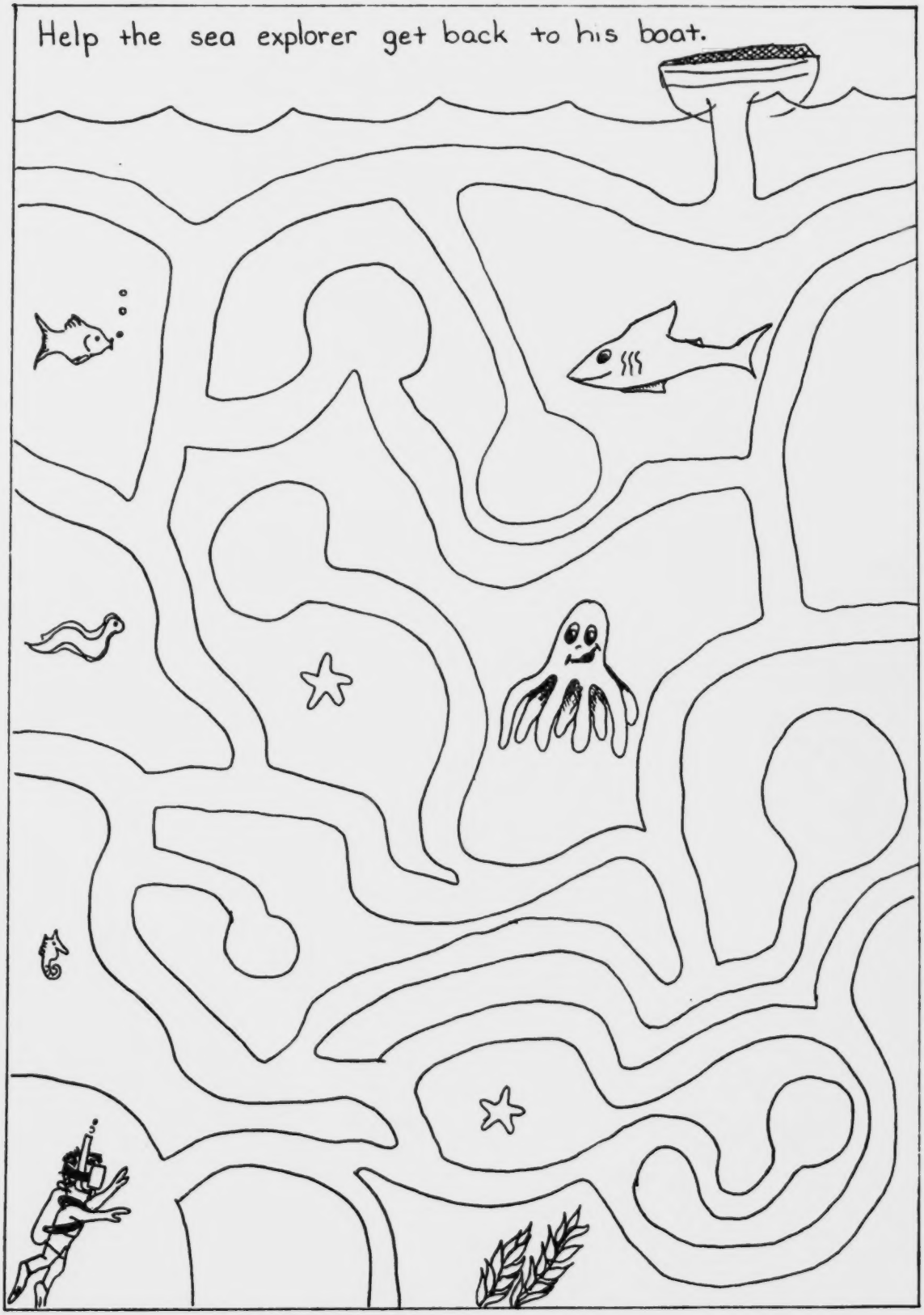
HELLO MOTHER, I AM FINE!

Materials: Paper and pencil
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

Have the children pretend they are cabin boys on one of Columbus' ships. Have them write to their mothers telling them about the new world they have discovered.
Variation: Try being a cook on one of Jacques Cousteau's trips.

SOME PEOPLE TO CONSIDER

Vasco de Gama
Gerardus Mercator (cartographer)
Sir Christopher Cockerell (developed hovercraft)
Thor Heyerdahl
John Fitch (original steampowered boat)
Louis Boutan (underwater photography)
Captain Cook
Vasco Nunez de Balboa
Saint Brendan
John Cabot
Christopher Columbus
James Cook
Sir Francis Drake
Leif Ericsson
Henry Hudson
Eric the Red
Amerigo Vespucci
Ferdinand Magellan
Jacques-Yves Cousteau


Help the sea explorer get back to his boat.

BOOKS FOR TODAY

Ames, Lee J. Draw 50 Boats, Ships, Trucks, and Trains
Andrews, Jan The Very Last First Time
Atkinson, Ian. The Viking Ships
Benchley, Nathaniel. Snorri and the Strangers
Birkett, Alaric. Vikings
Booth, Eugene. Under the Ocean
Caselli, Giovanni. A Viking Settler
Cave, Ron and Joyce. What about...Submarines?
Clarke, James I. Three Years on the Ocean
Clarke, Helen. The Vikings
Daniels, Patricia. (ed.) Let's Discover Ships and Boats
d'Aulaire, Ingri and Edgar. Columbus
DeLage, Ida. Pilgrim Children on the Mayflower
The Discoverers
Farr, Naunerle. The New World
Foster, Genevieve. The Year of Columbus
Fritz, Jean. Where do you Think You're Going Christopher Columbus?
Garibaldi, Gerald. He gave Himself to the Sea
Gibson, Michael. The Vikings
Grant, Neil. Explorers
Gross, Ruth Belov. A Book About Christopher Columbus
Henry, Joanne L. Robert Fulton: Steamboat Builder
Irwin, Constance. Strange Footprints on the Land
Isadora, Rachel. No, Agatha!
Janeway, Elizabeth. The Vikings
Johnson, Spencer. The Value of Boldness
Johnson, Spencer. The Value of Curiosity
Kellogg, Steven. The Island of the Skog
Latham, Jean L. Anchor's Aweigh: The Story of David Glasgow Farragut
Latham, Jean L. Carry on Mr. Bowditch
Monchieri, Leon. Christopher Columbus
Quackenbush, Robert. Watt Got You Started, Mr. Fulton?
Richards, Dorothy. Christopher Columbus, Who Sails On.
Stein, R. Conrad. The Story of Marquette and Jolliet
Taylor, Mark. Henry the Castaway
Weil, Lisl. I, Christopher Columbus
Westman, Paul. Jacques Cousteau: Free Flight Undersea
Westman, Paul. Thor Heyerdahl: Across the Seas of Time
Williams, Vera B. Three Days on a River in a Red Canoe.

FILMS FOR TODAY

500 Million Years Beneath the Sea
Aquarium
Bound for Freedom
The Brendan Voyage
Captain Silas
Chips Ahoy!
Christopher Columbus
Dare the Wildest River
Island of the Skog
Little Tim and the Brave Sea Captain
Log Raft: A Norwegian Summer Story
Mouse on the Mayflower
The Pilgrims
Voyage of the Brigantine Yankee
World Beneath the Sea

LET'S HIT THE TRAIL

Brave explorers set out overland to discover a new way of life. They traveled by wagons and on foot. They traveled by elephant and by camel. Life was not easy on the trail but all who ventured out showed courage and fortitude. The exploration of the pioneers of America and the world explorers of the European world opened new worlds for everyone. Today is a day to explore overland.

WHERE ARE WE GOING?

Materials: None
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

This is a guessing game. Choose a place to go and give clues to the children. Describe their surroundings or the weather. You may wish to choose a place in the library to describe and see how many of the group can guess the answer. Example: There is running water that gathers in a pool underneath a reflecting glass. Guess where you are. (bathroom)

PACKING FOR THE JOURNEY

Materials: Crayons, paper
Grade Level: K-4
Preparation Required: None
Supervision Required: Minimum

Pretend you are part of a wagon train heading west. Draw pictures of the items you will need to take with you.

A WILDERNESS DIARY

Materials: Pencils, paper
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

You are part of a wagon train going west. Write a diary about the sights and adventures you have for one week. You may possibly include sightings of Indians, breakdowns, water shortages, entertainment, and the reaching of your final destination.

Variation: Instead of a wagon train you are part of Marco Polo's expedition to China.

A COONSKIN CAP

Materials: Lightweight cardboard, glue, felt, tape, cotton, paint.
Grade Level: K-4
Preparation: None
Supervision Required: 1 helper for every 3 to 5 children

Cut a strip of lightweight cardboard long enough to go around head. Tape ends together. (fig. 1) Lay on felt and cut circle to fit with about 1 inch extra. (fig. 2) Tape circle to cardboard. (fig. 3) Cut a tail from felt and glue in place. (fig. 4) Glue cotton all over cap. (fig. 5) Paint cap brown with black rings on tail. (fig. 6)

fig. 1

fig. 2

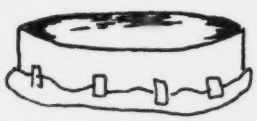


fig. 3

fig. 4

fig. 5

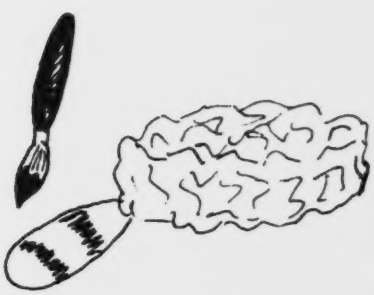


fig. 6

AND I TOOK A...

Materials: None
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

One person starts with the statement "I went on a wagon train and I took a _____." The next person continues with "I went on a wagon train and I took a _____ (filling in what the first person said) and a _____." Continue around the circle seeing how many items each can remember.

SONG TIME

Materials: None
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

Try singing "Sweet Betsy from Pike," "The Ballad of Davy Crockett," "The Bear went over the Mountain," or "The Erie Canal."

COOKING LIKE THE PIONEERS

Materials: Cream, jar with lid, crackers, napkins, knife
Grade Level: K-3
Preparation Required: None
Supervision Required: Minimum

Let the children make butter the way the pioneers did! Put the cream into a jar and take turns shaking it. After a while it will form a lump of butter. Spread it on crackers so all can sample it.

FOLLOW THE TRAIL

Materials: Stones, sticks
Grade Level: 4-up
Preparation Required: Set up the course beforehand
Supervision Required: 1 helper for every group set up

Set up a trail using Indian trail signs leading through the library or around the library to a finishing place with a prize such as a new bookmark or a handfull of jellybeans.
Variation: Have one group set up the trail for another to follow.

Turn left

Turn right

go this way

don't go this way

I CLAIM THIS LAND...

Materials: Paper, crayons
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

When an explorer found a new land, he claimed it in the name of his country or ruler. Have the children design flags to claim new land with.

NAMES TO CONSIDER

Jim Bridger
Marco Polo
Sacajawea
Laura Ingalls Wilder
William Clark
Narcissa Whitman
Will Sager
Davy Crockett
Roald Amundsen (1st to reach South Pole)
William Baffin (Explored Northeastern Canada)
Meriweather Lewis
John Charles Fremont
Sir Edmund Percival Hillary (conquered Everest)
Thorfinn Karisefni (Icelandic Viking who tried to colonize North America)
Alexander Gordon Lang (1st European to cross Sahara Desert)
David Livingstone
Tenzing Norkay (Hillary's guide up Everest)
Zebulon Montgomery Pike
Sir Henry Morton Stanley

FILMS FOR TODAY

Abyss
The Hobbit
Jedediah Smith
John Muir's High Sierra
Journey North
Legend of Johnny Appleseed
The Real West
The Saga of Windwagon Smith
Song of the Prairie
Vanishing Prairie Series: Pioneer Trails

BOOKS FOR TODAY

Ahlbergh, Janet and Allen. Jeremiah In the Dark Woods
Anderson, Joan. The Glorious Fourth at Prairietown
Brandt, Keith. Daniel Boone: Frontier Adventurer
Brenner, Barbara. Wagon Wheels
Byers, Betsy. The Golly Sisters Go West
Chambers, Catherine E. Frontier Dream: Life on the Great Plains
Daniels, Patricia. (ed.) Let's Discover Land Travel
Demi. Adventures of Marco Polo
Donahue, Marilyn Cram. Straight Along the Crooked Road
Finney, Susan and Kindle, Patricia. Antartic Explorations
Gleiter, Jan, and Thompson, Kathleen. Daniel Boone
Gleiter, Jan, and Thompson, Kathleen. Johnny Appleseed
Gorsline, Marie. The Pioneers
Greene, Carol. Marco Polo: Voyager to the Orient
Grey, Elizabeth J. Adam of the Road
Hilton, Suzanne. Faster Than a Horse
Hilton, Suzanne. Getting There: Frontier Travel Without Power
Honig, Donald. The Journal of One Davey Wyatt
Johnson, Spencer. The Value of Adventure
Johnson, Spencer. The Value of Love
Jonas, Ann. The Trek
Kherdian, David. Bridger: The Story of a Mountain Man
Laycock, George. How the Settlers Lived
Levine, Ellen. If You Travelled West in a Covered Wagon
McCall, Edith. Steamboats to the West
Marri, Noemi Vicini. Marco Polo
Meadowcroft, Enid L. By Wagon and Flatboat
Moore, Eva. Johnny Appleseed
Morrow, Honore. On To Oregon!
Quackenbush, Robert. Quit Pulling My Leg
Sabin, Louis. Narcissa Whitman: Brave Pioneer
Snyder, Zilpha. The Changing Maze
Stein, R. Conrad. The Story of the Lewis and Clark Expedition
Talbot, Charlene Joy. The Sodbuster Venture
Taylor, Mark. Henry the Explorer
Thatcher, Alida. Perilous Journey to the Top
Tolkien, J.R.R. The Hobbit
Verne, Jules. Around the World in 80 Days
Wayne, Bennett. (ed.) Adventures in Buckskin
White, E.B. Stuart Little
Williams, Jay. Danny Dunn and the Fossil Cave
Wisler, G. Clifton. Buffalo Moon

THEY SAID IT WOULD NEVER WORK!

It'll never work! That's what some people said. Inventors have given the world everything from the automobile and the airplane to the paperclip and the typewriter. They used kites and strings and other things to find ways to make life easier for all mankind. Today is a day for the children to explore inventors and to invent things for themselves.

BUILD A CAMERA

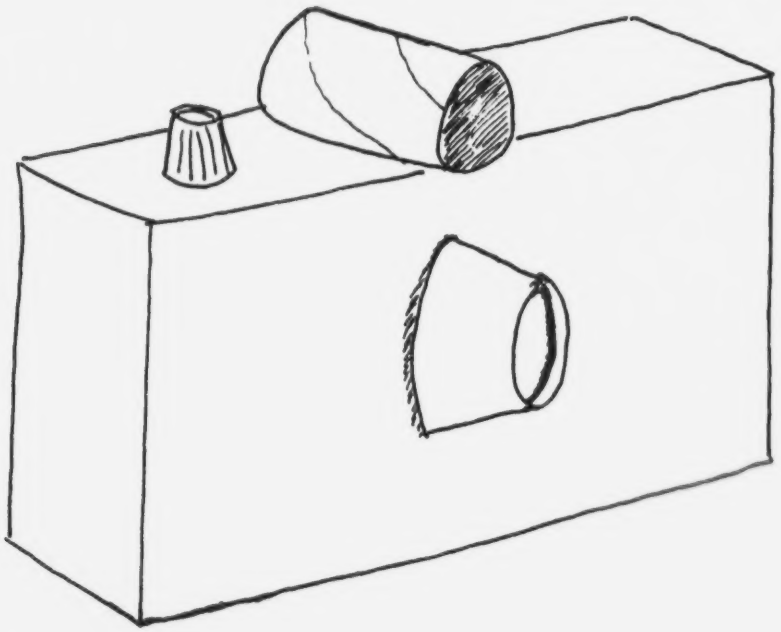
Materials: Small bathroom cup, toilet paper tube, toothpaste cap, shoebox, glue, scissors
Grade Level: K-3
Preparation Required: None
Supervision Required: 1 helper for every 3 to 5 children

Before you begin the project introduce the group to some of the pioneers of photography. The book CAMERAS by Ronald Bostrom can be used for information.

1. Cut the bathroom cup in half
2. Glue cup to front of box
3. Glue toilet paper tube to top of box
4. Glue toothpaste lid to top of box

Your camera will look like this:

Diagram 12



SCRAMBLED INVENTORS

Materials: Puzzle sheet
Grade Level: 4-up
Preparation Required: Prepare enough puzzle sheets for everyone
Supervision Required: Minimum

Can You Unscramble the following Inventors?

S I N O D E
T H Y E N W I
R G W H I T
R S O M E
L B E L
R O F D
O O Y D G E A R
F A K I R N L N
L G L G O K E
G E R B N T E U G E
S T E A A M N
U T F O N L
D K A K O
B B B A A G E
O L S S H E
S S S U T R A
T H C I F

Answers:

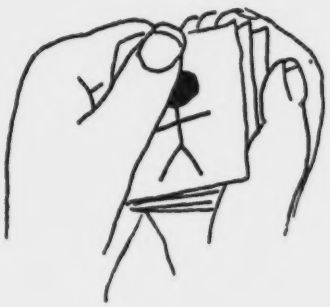
Edison
Whitney
Wright
Morse
Bell
Ford
Goodyear
Franklin
Kellogg
Gutenberg
Eastman
Fulton
Kodak
Babbage
Sholes
Strauss
Fitch

MOVING PICTURES

Materials: Index cards, pencil
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

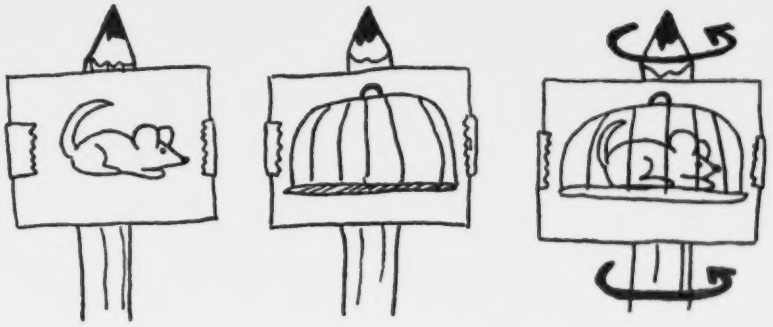
Motion pictures are perhaps the favorite invention of many people. This is an easy way for the group to make their own motion pictures to see how the process works.

Draw several simple pictures of an action such as a man walking. Try to keep them in the same position on each separate card. Stack the cards and hold on to one edge. Flip through the cards quickly. The figures will seem to move!



Variation: MOVING MOUSE
Materials: Tape, pencil, two index cards
Grade Level: 3-up
Preparation Required: None
Supervision Required: Minimum

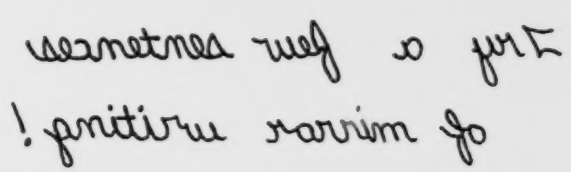
Draw a mouse on one of the cards. In the same area on the other card draw a cage. Tape the cards together around the pencil. Twirl the pencil between your hands. The mouse will appear to move into the cage.



MIRROR WRITING

Materials: Mirror, pencil, paper
Grade Level: 4-up
Preparation Required: Prepare some examples ahead of time
Supervision Required: Minimum

Many inventors had strange habits. Leonardo da Vinci wrote many of his notes backwards so they could only be read with the aid of a mirror. Try writing like da Vinci. With some practice you can learn to write backwards without the help of the mirror.

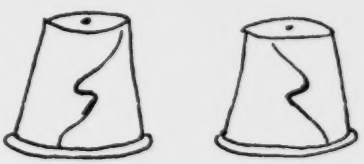


RING! RING!

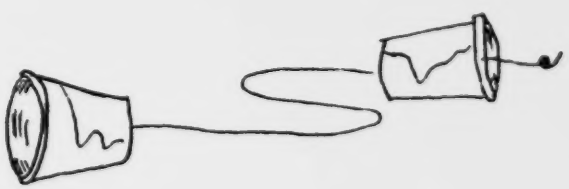
Materials: 2 paper cups, string or wire, needle to make hole
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger children: 1 helper for every 4 to 6 children. Older: Minimum

The telephone is an invention that has become almost a necessity in today's world. Follow the directions to build a simple telephone.

1. Punch a hole in the bottom of each cup.



2. Insert string or wire through hole and knot.



3. Pull string tight and talk!

A WORLD WITHOUT ELECTRICITY

Materials: None
Grade Level: K-4
Preparation Required: None
Supervision Required: Minimum

What would the world be like without the invention of electricity? Take a walk through the library and count everything that would not work without electricity. Discuss what could replace these items.

Variations: 1. Draw pictures of the library or home with all the electrical items either missing or replaced. 2. This activity can be used to included any invention. Try automobiles, plastics, or metal.

BE A ROBOT

Materials: None
Grade Level: K-3
Preparation Required: none
Supervision Required: Minimum

Robotics is a fantasy that has come true. Robots are used in factories and industry to make life easier on humans. Let the children take turns being a robot performing different tasks. Let the others try to guess what they are doing.

NAME MY INVENTION

Materials: None
Grade Level: K-5
Preparation Required: None
Supervision Required: Minimum

Take turns becoming an inventor. Describe your invention to the group and have them name it. Example: My invention is a little room that moves up and down in a building. You can ride in it so you don't have to climb any stairs. Answer: An Elevator

PUSH BUTTONS

Materials: Circles cut from sticky-back paper
Grade Level: K-3
Preparation Required: Cut paper circles
Supervision Required: Minimum

Put a "button" on each child. Have them decide secretly what household invention they want to be. Have another child push their button to start them up. Let the group try to guess what they are.

A CODE MESSAGE

Materials: Code sheet for each person
Grade Level: 4-up
Preparation Required: Prepare enough code sheets and puzzles for each person to have a copy.
Supervision Required: Minimum

Samuel Morse invented this code to use with his communication wire. Let the children decipher the coded message and then make up messages of their own.

MORSE CODE

a .-	b -...	c -.-.	d -..	e .	f ..-.	g --.	h	i ..	
j .---	k -.-	l .-..	m --	n -.	o ---	p .--.	q --.-	r .-.	
s ...	t -	u ..-	v ...-	w .--	x -..-	y -.--	z --..		

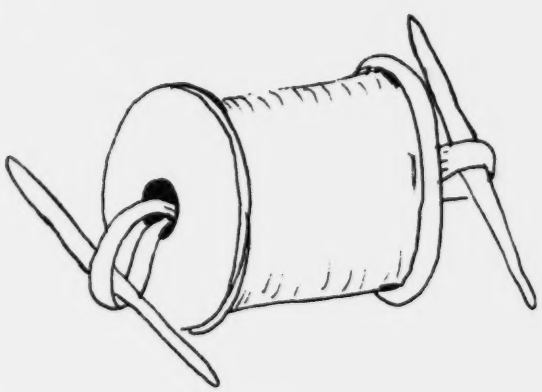
Question: ..../---/.--//-../---//-.--/---/..-//-.-./-./.-../
.-..//-.//--/---/-./../-/./.-.//?

Answer: .-.../---/-./--.//-../../.../-/.-/-./-.-././/

BUILD A CAR

Materials: 1 spool, rubberband, 2 toothpicks
Grade Level: K-4
Preparation Required: None
Supervision Required: 1 helper for every 5 to 8 children

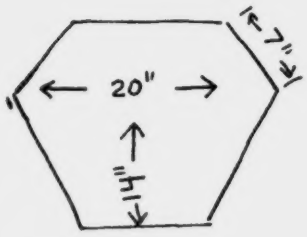
Put rubberband through the hole in the spool. Insert a tooth pick through each end. Wind tight and let go. The car will move across the floor. Have a race!

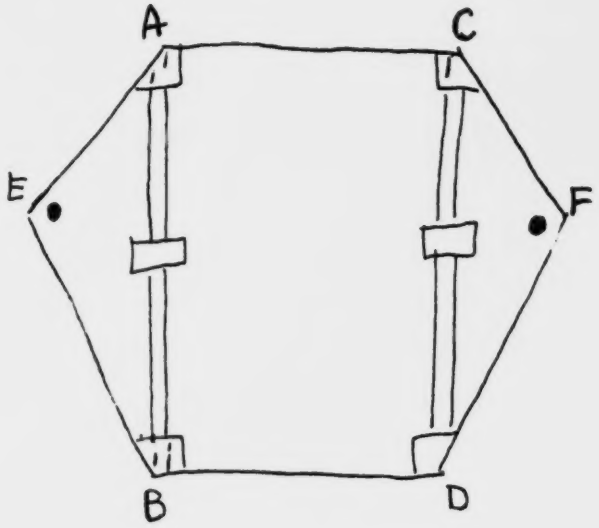


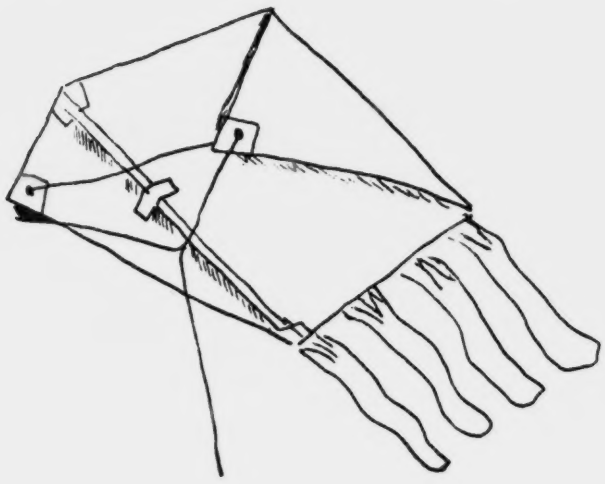
BEN FRANKLIN'S KITE

Materials: Plastic trash bag, 2 1/8" dowels 16"long, tape,
string, crepe paper, hole punch, scissors, magic markers
Grade Level: 4-up
Preparation Required: Cut dowel rods to size.
Supervision Required: 1 helper for every 4 to 6 children

1. Cut bag to match pattern.
2. Decorate 1 side with markers.
3. Tape sticks from point A to B, and C to D
4. Punch holes at points E and F.
5. Thread a 40" string through holes and tie.
6. Tape over holes to prevent tearing.
7. Add crepe paper tail.
8. Tie kite string to center of string already on kite.
9. Fly!







NAMES TO CONSIDER

Thomas Edison
Alexander Graham Bell
Eli Whitney
Orville Wright
Wilbur Wright
Samuel Morse
Benjamin Franklin
Johann Gutenberg
George Eastman
Levi Strauss
Robert Fulton
Charles Babbage

BOOKS FOR TODAY

Ames, Lee J. Draw 50 Cars, Trucks, and Motorcycles
Asimov, Isaac. How Did We Find Out About Computers?
Asimov, Isaac. How Did We Find Out About Robots?
Asimov, Isaac. Thinking Machines
Asimov, Isaac. Wild Inventions
Bailey, Mark W. Electricity
Behrman, Carol H. The Remarkable Writing Machine
Benjamin, Alan. One Thousand Inventions
Bostrom, Ronald. Cameras
Branley, Franklyn M. Timmy and the Tin-Can Telephone
Castle, Caroline. Herbert Binns and the Flying Tricycle
Clark, James I. Cars
Cohen, Daniel. The Last Hundred Years; Household Technology
Cousins, Margaret. Ben Franklin of Old Philadelphia
Crump, Donald J. Small Inventions That Made a Big Difference
Dahl, Roald. Charlie and the Chocolate Factory
Daniels, Patricia. Let's Discover the World of Machines
Davidson, Margaret. The Story of Thomas Alva Edison
Fritz, Jean. What's the Big Idea Ben Franklin?
Gackenbach, Dick. Dog for a Day
Gaffney, Timothy R. Jerrold Petrofsky: Biomedical Pioneer
Gleasner, Diana. The Movies
Hamm, Diane Johnston. Grandma Drives a Motor Bed
Hellman, Hal. Transportation in the World of the Future
Henry, Joanne L. Robert Fulton: Steamboat Builder
Johnson, Spencer. The Value of Discipline
Johnson, Spencer. The Value of Saving
Judson, Amelia. Extraordinary Egg-Hunt Machine
Kanetzke, Howard W. Trains and Railroads
Kettletramp, Larry. Lasers, the Miracle Light
Kleiner, Art. Robots
Lachenbruch, David. Television
Latham, Robert. Ben and Me
Leon, George. The Electricity Story
Lepscky, Ibi. Leonardo da Vinci
Manes, Stephen. Chicken Trek

Matthias, Catherine. I Can Be a Computer Operator
Miller, Marilyn. The Trans-Continental Railroad
Mitchell, Barbara. We'll Race You Henry.
Moolman, Valerie. The Future World of Transportation
Murphy, Jim. Guess Again: More Weird & Wacky Inventions
Nathan, Adele G. The Building of the First Transcontinental Railroad
Pelta, Kathy. Bridging the Golden Gate
Peppe, Rodney. The Mice and the Clockwork Bus
Quackenbush, Robert. Oh, What an Awful Mess
Quackenbush, Robert. Quick, Annie, Give Me a Catchy Line!
Quackenbush, Robert. Watt Got You Started, Mr. Fulton?
Quackenbush, Robert. What Has Wild Tom Done Now?
Richards, Norman. Dreamers & Doers
Sachs, Marianne. Leonardo
Sadler, Marilyn. Alistair's Time Machine
Stanish, Bob. The Unconventional Invention Book
Stevenson, James. Fast Friends
Thurman, Judith and David, Jonathan. The Magic Lantern
Vowles, Andrew. Robotics
Waddell, Martin. Harriet and the Robot
Weiss, Harvey. How to be an Inventor
Wilkinson, Sylvia. Automobiles
Williams, Jay. Danny Dunn and the Smallifying Machine
Wulffson, Don L. Extraordinary Stories Behind the Inventions of Ordinary Things
Wymer, Norman. Inventors
Zomberg, Paul G. Computers

FILMS FOR TODAY

Alexander and the car with the missing headlight
Auto Biography
Auto-intoxication
Automania 2000
An Award for Mr. Rossi
Ballet Robotizue
Bate's car
Ben and Me
Beep Beep
Benjamin Franklin
Delicious inventions
Film, the art of the impossible
Hammy Hamster: Time Machine
Henry Ford
Ida Makes a Movie
It couldn't be done
Merrily we roll along
Motor Mania
Once upon a time there was a dot
Susie the little blue coupe
What on earth
The Wizard who spat on the floor

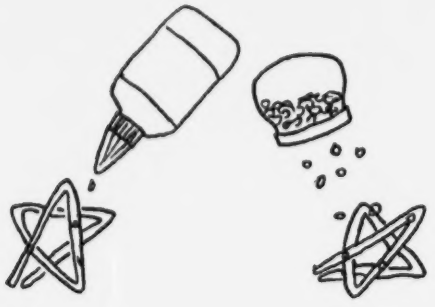
BLAST OFF TO ADVENTURE!

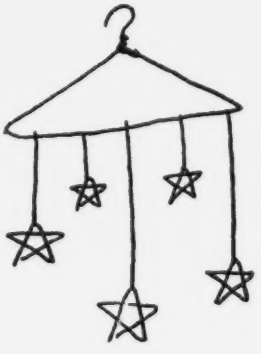
Space has been called the final frontier. People have dreamed of walking on other planets and living in outer space. Man has gazed at the night sky and imagined aliens and intelligences and wondered what it would be like to meet them. Many of today's best-selling authors are science fiction writers who open space exploration to readers of all ages. People have set foot on the moon and touched the outer edge of our galaxy with space probes. Plans are being made for a permanent orbiting space station and a base on the moon. Today is a day to explore outer space and the people who reach for it.

GAZE AT THE STARS

Materials: Coat hanger, pipecleaners, glue, silver glitter, string
Grade Level: K-3
Preparation Required: Cover work area with paper to prevent mess
Supervision Required: 1 helper for every 3 to 5 children

Make a mobile of stars! Bend the pipecleaners into star shapes and dot them with glue. Sprinkle with silver glitter. When dry tie them to coat hanger. Hang your stars and gaze to your heart's content.





CREATE A CONSTELLATION

Materials: Black construction paper, stick-on stars, book on constellations
Grade Level: K-3
Preparation Required: None
Supervision Required: 1 helper for every 5 to 7 children

Look at some pictures of constellations. Now get creative and make up some constellations of your own! Arrange the stars on the paper without sticking them down until you are satisfied with their shape. Now lick them and stick them. Presto! Your own original constellation.

PINHOLE CONSTELLATIONS

Materials: Flashlight, pint-sized milk carton, tack or nail
Grade Level: 4-up
Preparation Required: Wash the milk cartons out!
Supervision Required: 1 helper for every 5 to 10 children

Constellation creation for the older children. Use a tack or nail to punch holes in the bottom of the milk carton in the shape of a constellation. Insert the flashlight into the carton and turn it on. Turn the lights out and shine your constellation onto the wall!
Variation: Cut circles of paper to cover the flashlight. Use a pin to punch holes. Hold over end of flashlight to project.

FLYING SAUCER CONTEST

Materials: 2 paper plates, stapler, clothes hanger
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger children - 1 helper for every 4 to 6 children. Older children - Minimum

Put plates back to back and staple around center. This forms your saucer. To fly, spin like a frisbie. Take clothes hanger and pull it out to form a circle. Hang it up and throw the saucer through it. Make two and have a contest!

SPACEWALK

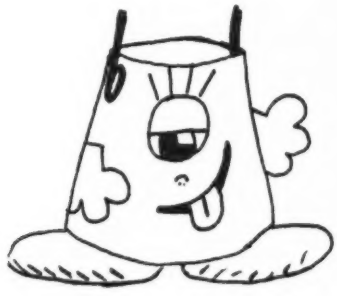
Materials: None
Grade Level: K-2
Preparation Required: None
Supervision Required: None

Talk about the atmosphere and gravity in outer space. Have the children experiment with space walking. Start with the lift off and then land on the moon. Have them walk like they think they would in space.

A LITTLE GREEN MAN

Materials: Styrofoam cups, scissors, glue, tape, odds and ends
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger children 1 helper for every 4 to 6 children. Older children: Minimum

Use the styrofoam cup as a base and create a creature that you might encounter while exploring outer space. Little hands can fit into the cup to use as puppets!



SONG TIME

Materials: None
Grade Level: K-up
Preparation Required: Practice first!
Supervision Required: Minimum

Try singing "Twinkle, Twinkle Little Star," "Blue Moon," "Fly Me to the Moon."

THE MAN IN THE MOON

Materials: Paper, crayons
Grade Level: K-4
Preparation Required: None
Supervision Required: Minimum

Everyone has heard of the man in the moon. This is a chance for the children to imagine what he looks like. Have the children draw the man in the moon.

ROCKETS

Materials: Balloons, styrofoam cups, crayons
Grade Level: K-4
Preparation Required: None
Supervision Required: 1 helper for every 4 to 5 children

Give each child a cup, a balloon, and some crayons. Decorate the cups with the crayons. Blow the balloon partially full and insert it into the cup holding the neck closed. Let go and watch the rocket take off!

TRAPPED ON THE MOON

Materials: Pencil, paper
Grade Level: 5-up
Preparation Required: Prepare enough supply lists for everyone
Supervision Required: Minimum

This is an exercise in mental thinking. It will encourage the group to reason and make decisions. It also leads to some lively discussion!

TRAPPED

You have crash landed on the moon! Your ship is permanently disabled. You know that there is a base within a few days walking distance. You are not sure how many days. Below is a list of items you have in your space ship. You can only carry five items with you. What will you take? Why?

2 spare oxygen tanks
1 gallon water
gas heater
extra gas
matches
flashlight
extra batteries
thermal blanket
constellation map
first aid kit
flares
tranquilizer gun
compass
food packs
rope
knife
radio with 1 mile limit
tent

Choose your items and set out. Will you make it?

Variation: Have them write a diary of their journey.

SPACE HELMETS

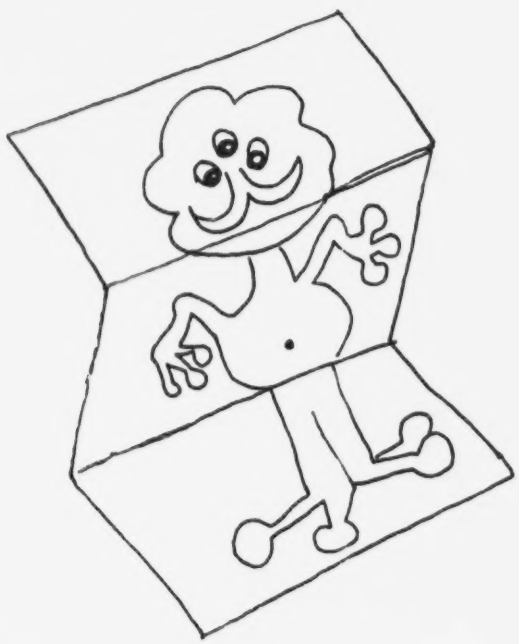
Materials: Paper bags, scissors, crayons
Grade Level: K-3
Preparation Required: None
Supervision Required: 1 helper for every 4 to 6 children

Cut the center of the front of the paper bag out in a circle. This forms your faceplate. Decorate the front of the bag with knobs and dials like a space helmet. Put the helmets on and pretend you are an astronaut.

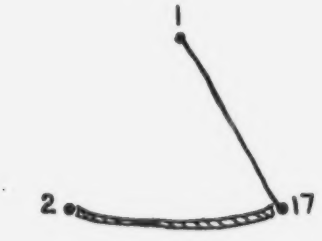
COOPERATIVE SPACE CREATURES

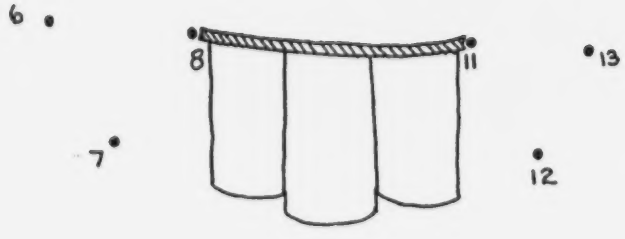
Materials: Paper, crayons, pencils
Grade Level: 3-up
Preparation Required: Fold paper into thirds
Supervision Required: 1 helper for every 6 to 9 children

Divide children into groups of three. Give each group a folded paper and a pencil or crayon. Have the first person draw the head of a space creature. Fold the paper so the head does not show. Give the paper to the next person. He draws the body and folds the paper so the head and body does not show. The last person draws the legs and feet. Now unfold the paper and see what the completed space creature looks like.



Connect the dots !





NAMES TO CONSIDER

Galileo
Wernher von Braun (rocket engineer)
Neil Armstrong
Edwin Eugene (Buzz) Aldrin
Yuri Alekseyevich Gagarin (1st person in space)
Sally Ride
Michael Collins (Apollo 12 mission)
Alan Shepard
Ron McNair
Guion Bluford
John Glenn

BOOKS FOR TODAY

Ames, Lee J. Draw 50 Airplanes, Aircraft, and Spacecraft
Ardley, Neil. Fact or Fiction?
Ardley, Neil. Out Into Space
Asimov, Isaac. How Did We Find Out About Outer Space?
Asimov, Isaac. How Did We Find Out About Our Universe?
Barrett, N.S. Space Shuttle
Barrett, Norman. Astronauts
Behrens, June. I Can Be an Astronaut
Behrens, June. Sally Ride, Astronaut
Berger, Melvin. Space Shots, Shuttles, and Satellites
Blocksma, Mary and Dewey. Easy-to-Make Spaceships that Really Fly
Branley, Franklyn M. From Sputnik to Space Shuttle
Branley, Franklyn M. Space Colony
Cave, Ron and Joyce. What About...Space Shuttles?
Clendinen, Dudley. A Path to the Stars
Daniels, Patricia. (ed.) Let's Discover Outer Space
Dwiggins, Don. Flying the Frontiers of Space
Fradin, Dennis. Moon Flights
Hartman, William K. Out of the Cradle
Haskins, James and Benson, Kathleen. Space Challenger
Hawkes, Nigel. Space Shuttle
Hill, Eric. Up There
Hiller, B.B. and Neil. Spacecamp
Johnson, Crockett. Harold's Trip to the Sky
Kerrod, Robin. The Challenge of Space
Kerrod, Robin. Mission Outer Space
Kerrod, Robin. Race for the Moon
Kerrod, Robin. See Inside a Space Station
Lord, Suzanne. A Day in Space
McPhee, Penelope and Raymond. Your Future in Space
Mayer, Mercer. Astronaut Critter
Miller, Marilyn. One Giant Leap for Mankind
Moche, Dinah. The Astronauts
Moche, Dinah. Astronomy Today
Petty, Kate. Space Shuttle
Round, Graham. What if I Were an Astronaut?

Sadler, Marilyn. Alistair in Outer Space
Seevers, James. Space
Shields, Cornelia. Amy Goes to the Moon
Thompson, Brenda and Glesen, Rosemary. Rockets and Astronauts
Treece, Henry. Road to Mktelagard
Trefil, James S. Living in Space
Verheyden-Hilliard, Mary E. Scientist and Astronaut, Sally Ride
Westman, Paul. John Glenn
Westman, Paul. John Young
Young, Mike. The Adventures of Superted in Outer Space

FILMS FOR TODAY

Astronoughts
Cow on the Moon
The Eagle has Landed
Flight of the Friendship 7
Kites to Capsules
The Mole and the Rocket
Moonwalk
Spaceborne
What on Earth?

PASS ME THAT TEST TUBE!

Scientists have played a part in most of the inventions and discoveries made by man. Scientists have used their knowledge and insight to explore possibilities that have not occurred to most men. Their discoveries have given the world cures for diseases, new ways to do old things, and shown man many possibilities for the future. In many ways few of the other trailblazers and stargazers would have succeeded had scientists not played a part. Today is a day to become a scientist and to experiment. Warm up your Bunsen Burners and let's go!

CHEMICAL FIRE EXTINGUISHER

Materials: Soft drink bottle, cork, vinegar, water, baking soda, paper napkins, spoon, cup, thread
Grade Level: 4-up
Preparation Required: Make arrangements to do this outside.
Supervision Required: 1 helper for every 4 children (you may want to do this as a demonstration only)

1. Fill bottle with 1 cup water and 1 Tablespoon vinegar.
2. Wrap 1 teaspoon of baking soda in a napkin.
3. Tie thread around napkin and suspend by fitting cork into neck of bottle.
4. Close bottle fairly tightly.
5. Invert bottle momentarily and the solution will soften the napkin and the soda will be released to drop into the vinegar solution.
6. Point the top of the bottle toward the sky. DO NOT POINT TOWARD ANYTHING WHICH MIGHT BREAK OR BE INJURED!
7. Cork will pop out, sometimes with great force.

WHY IT HAPPENED: Carbon dioxide gas was formed when the solution wet the soda. It built up pressure to force the cork out.

WARNING: Warn the children not to try this at home alone!

INVISIBLE INK

Materials: Lemon, toothpick, dish, paper, lamp
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger children: 1 helper for every 5 to 7 children. Older children: Minimum

1. Squeeze the juice from the lemon into a dish.
2. Dip the toothpick into the juice and write with it.
3. Set the paper aside a while to dry.
4. Heat the paper by holding it over a light bulb. Move the paper around so that all the invisible writing gets warm.
5. The writing will become visible.

WHY IT HAPPENED: The heat causes a chemical change in the lemon juice which makes it turn brown.

SOLUTIONS THAT DON'T MIX--MAGIC WAVE

Material: Baby food jars with lids, turpentine, rubbing alcohol, food coloring
Grade Level: K-up
Preparation Required: You may want to do this outside
Supervision Required: 1 helper for every 4 to 6 children

1. Make a mixture of turpentine and rubbing alcohol in equal parts.
2. Add a few drops of food coloring. (blue makes the wave look like an ocean)
3. Close bottle TIGHTLY!
4. Shake to mix in food coloring.
5. Let the solution settle.
6. You now have a magic wave. If you tip it back and forth it will look like an ocean wave.

WHY IT HAPPENED: Some things have different densities, like oil and water. They won't mix. Turpentine and rubbing alcohol don't mix. The food coloring adds color to your creation.

GROWING CRYSTALS

Materials: Baking soda, teaspoon, 1/2 cup water, pan, hot plate, string, weight.
Grade Level: K-up
Preparation Required: Prepare a place where experiment can sit undisturbed for several days.
Supervision Required: Group project.

1. Dissolve as much baking soda a possible by stirring a teaspoonful at a time into a 1/2 cup of water in the pan.
2. Heat the solution (do not boil.)
3. Remove from the heat, stir, and add more soda until no more will dissolve.
4. Cool. Pour into a clear glass.
5. Hang a string and weight in this solution. After several days, the crystals will grow on the string as the water evaporates. (If you do this with sugar you will have rock candy and the children can eat it!)

VISIT

Materials: None
Grade Level: K-up
Preparation Required: Contact visitor and let him know what you would like him to include in his visit
Supervision Required: Minimum

How about a visit from someone who uses science every day. A cooperative doctor, policeman, or farmer from your area could come and tell about the many things he uses in the field of science.

X-RAYS

Materials: Flashlight or lamp, cut-out shapes, light-colored paper
Grade Level: K-4
Preparation Required: None
Supervision Required: Minimum

Put the cut-out image behind the paper and shine a light behind it. You can pretend this is an x-ray.
Variation: This can be expanded into a shadow-puppet play.

NAMES TO CONSIDER

Albert Einstein
Albert Schweitzer
Christiaan Barnard
Marie Curie
Sir Isaac Newton
Benjamin Franklin
Edward Jenner (smallpox vaccine)
Jonas Salk (polio vaccine)
Paracelsus (Renaissance physician established use of chemicals to treat illness)

BOOKS FOR TODAY

Aaseng, Nathan. The Inventors
Alexander, Alison and Bower, Susie. Science Magic
Ardley, Neil. Fact or Fiction
Ardley, Neil. Health and Medicine
Bailey, Mark W. Electricity
Berger, Melvin. Exploring the Mind and Brain
Brandt, Keith. Marie Curie: Brave Scientist
Brown, Bob. Science Treasures
Cobb, Vicki. More Science Experiments You Can Eat
Cobb, Vicki. Bet You Can!
Cobb, Vicki. Bet You Can't!
Cohen, Daniel. Carl Sagan
Cohen, Daniel. The Last Hundred Years: Medicine
Cremaschi, Gabriella. Albert Schweitzer
Gaffney, Timothy R. Jerrold Petrofsky: Biomedical Pioneer
Gollomb, Joseph. Albert Schweitzer
Hammontre, Marie. Albert Einstein, Young Thinker
Johnson, Spencer. The Value of Believing in Yourself
Johnson, Spencer. The Value of Dedication
Johnson, Spencer. The Value of Learning
Johnson, Spencer. The Value of Sharing
Leon, George. The Electricity Story
Lepscky, Ibi. Albert Einstein
Mitchell, Barbara. A Pocketfull of Goobers
Moore, Eva. The Story of George Washington Carver
Simon, Seymour. Mad Scientists, Weird Doctors, & Time Travelers
Sootin, Harry. 12 Pioneers of Science

FILMS FOR TODAY

Dr. Heidegger's Experiment
Marie Curie--A Love Story
Mole as a Chemist
The Wizard Who Spat on the Floor

DRAW ME A PICTURE!

Art comes in all shapes and sizes. It can be realistic or ultra-modern. It can be a picture or a sculpture. It can be made of wood, metal, glass, or paint. But no matter what form the art takes, it all has a common background -- the fertile imaginations of men and women who are called artists. Today is a day for children to explore art and artists and to create their own masterpieces. Don't forget to display some of their creations throughout your library.

HOW DO YOU FEEL?

Materials: Crayons, paper (if you don't mind mess use paint!)
Grade Level: K-up
Preparation Required: If using paint, cover work area
Supervision Required: For painters--1 helper for every 3 to 5 children. For crayons--Minimum

Artists use different colors to express different moods. Blue tones can be used to make one feel sad. Red can make you feel angry or excited. Have the children use crayons or paint to show how they feel today. Encourage them to use colors and shapes that they think fit their moods.
Variations: 1. Provide the group with a situation to illustrate. 2. Have group look at some famous pictures and tell what they think the artist was feeling by looking at the colors and shapes.

POINTILLISM

Materials: Paper, hole punch, glue
Grade Level: 3-up
Preparation Required: To save time you may wish to prepare points ahead of time.
Supervision Required: 1 helper for every 5 to 10 children

Pointillism is a method of painting with dots to make a picture. By placing a blue dot next to a yellow dot the eye will combine the two and make green. Use a hole punch and punch dots from colored paper. Arrange them on a piece of paper until they are pleasing to you. Glue them down to make a pointillistic picture!
Variation: MUCH EASIER! Use crayons or markers to make the dots. The effect will be the same but much easier and cleaner.

WIRE SCULPTURE

Materials: Pipe cleaners, small pieces of styrofoam
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

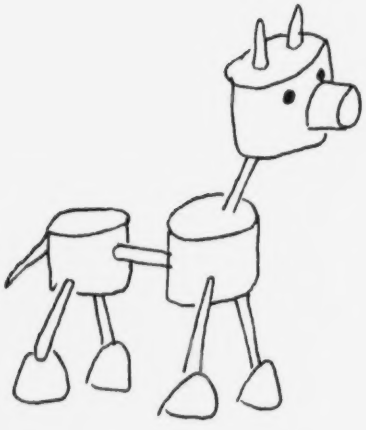
Twist and turn the pipe cleaners to form shapes and lines. Use the styrofoam as a base to secure the sculpture.

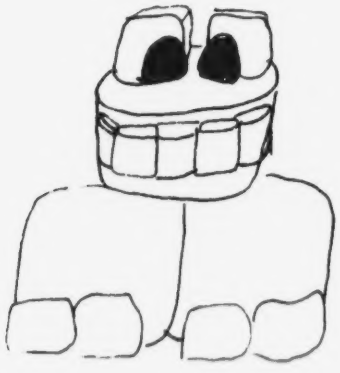
TOOTHPICK SCULPTURE

Materials: Toothpicks, large marshmallows, small colored marshmallows, gumdrops
Grade Level: K-up
Preparation Required: none
Supervision Required: younger children: 1 helper for every 5 to 10 children Older children: Minimum

What could be more fun than making a sculpture that you can eat! Use the toothpicks to connect the marshmallows and gumdrops together to construct whatever the children can imagine.
Variation: Use peas instead of marshmallows. Soak the dried peas for a few hours to make them soft enough for the toothpicks to go in. When the sculpture is completed, allow it to dry. The peas will shrink around the toothpicks to make the sculpture solid.

Examples:





PLASTER SCRIMSHAW

Materials: Plaster of paris, wax paper, nails, paint
Grade Level: 3-up
Preparation Required: You may wish to prepare the plaster disks ahead of time to avoid mess.
Supervision Required: With prepared disks--1 helper for every 5 to 10 children.

Scrimshaw is an art form of both ancient and modern times. It is done by scratching designs on bone and ivory but this takes time and money. Plaster scrimshaw allows the children to experience the art form inexpensively.
1. Stir 1 cup of plaster of paris into 2/3 cups of water
2. Mix well to eliminate lumps.
3. Drop onto waxed paper to form disks.
4. Let plaster harden.
5. Use a nail to etch designs onto the plaster disks.
6. Paint if desired.

PLASTER CARVING

Materials: Plaster of paris, milk cartons, spoons and dull knives
Grade Level: 5-up
Preparation Required: Make plaster blocks beforehand
Supervision Required: 1 helper for every 5 to 10 children

Mix plaster and pour into milk cartons. Allow to harden and remove from cartons. Carve the plaster using kitchen utensils. Helpful hints: dip the plaster into water to make carving easier. Salt in the plaster makes it harden faster. Add coffee grounds to add texture. Caution: Plaster clogs sinks!

SCRAP ART

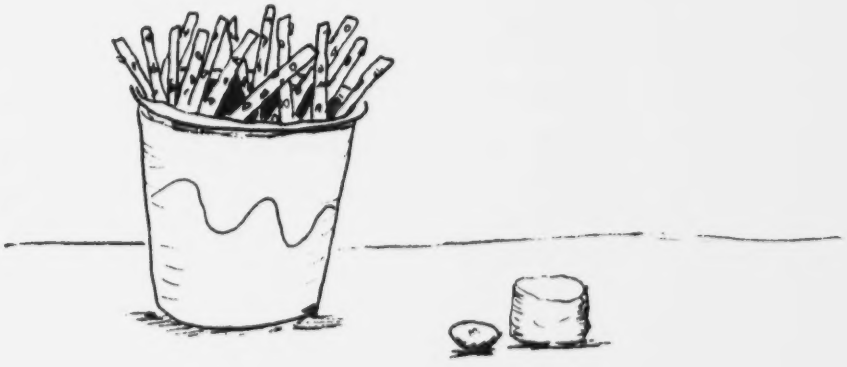
Materials: Scrap and junk, glue, tape, hammer and nails, etc.
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger Children: 1 helper for every 5 to 7 children. Older Children: 1 helper for every 7 to 10 children.

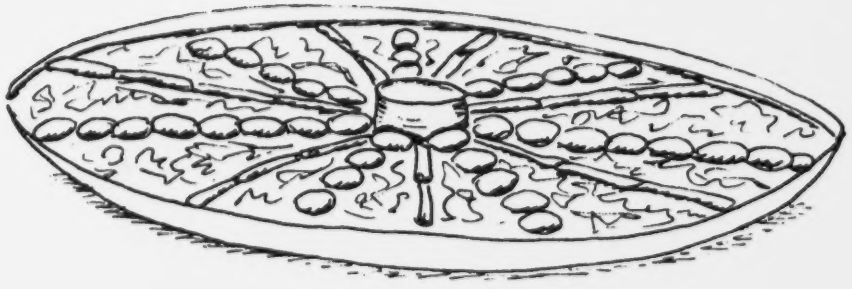
Use the scraps and junk to create junk sculpture. Try animals and buildings from boxes and cans!

COLLAGE MAKING

Materials: Paper plates, spoons, honey, 5-6 bathroom-sized cups filled with some of the following: colored marshmallows, pretzel sticks, cheese puffs, M&M's, gumdrops, popcorn, dry cereal, carrot curls, raisins, peanuts, coconut, etc.
Grade: K-up
Preparation Required: Divide items into cups to give all an equal share.
Supervision Required: Younger children: 1 helper for every 5 to 7 children. Older children: Minimum

Spread a spoonful of honey over the entire surface of the plate. (This makes the glue for the collage.) Select several items from the cups and arrange them in a beautiful pattern on the sticky plate. If you're very brave, you will wait to eat your creation until you get home and show it to your family!





PEANUT BUTTER PLAYDOUGH

Materials: 2 c. powdered milk, 2 c. smooth peanut butter, 1 c. honey
Grade Level: K-2
Preparation Required: You may want to mix beforehand
Supervision Required: 1 helper for every 5 to 7 children

Mix the ingredients together to form a tasty modeling dough that can be used with the younger children who are often tempted to taste the clay.

MODELING CLAY

Materials: 2 c. self-rising flour, 2 tbs. cream of tartar, 2 tbs. cooking oil, 1 c. plus 2 tbs. boiling water, food coloring, hot plate, pan, spoon, bowl.
Grade Level: K-up
Preparation Required: If you don't have a hot plate to boil the water you will have to prepare this beforehand.
Supervision Required: Younger children: 1 helper for every 5 to 7 children. Older children 1 helper for every 7 to 10 children.

Start the water boiling first! Mix dry ingredients. Add oil and food coloring and hot water. Mix well and knead.

RUBBINGS

Materials: crayons, paper, scissors, glue
Grade: K-5
Preparation Required: none
Supervision Required: 1 helper for every 5 to 7 children

Put your paper onto a surface with a texture, such as cement, wire screen, or leaves. Rub a crayon over the paper. The texture of the surface will show on the paper.
Variations: 1. After taking the rubbings cut them into squares and glue them into collages. 2. Take rubbings of leaves.

WHAT'S IN A TITLE?

Materials: book of famous paintings, crayons or paint, paper
Grade Level: 4-up
Preparation Required: None
Supervision Required: For painters: 1 helper for every 5 to 7 children. Others: Minimum

Tell the children a title of a famous painting. Have them draw or paint their idea of what the picture looks like. When they are done show them the artist's picture. You'll be surprised at the variety of ideas.
Variation: Show them the picture and have them think of new titles for it.

NAMES TO CONSIDER

Leonardo da Vinci
Michelangelo
Norman Rockwell
Grandma Moses
Andy Warhol
Vincent Van Gogh
Pablo Picasso
Maurice Sendak

FILMS FOR TODAY

Art from Scrap
Art in Glass
The Bronze Zoo
Claymation
Closed Mondays
Collage: Exploring Texture
The Day the Colors Went Away
Design to Music
Draw me an Elephant
Drawing with a Pencil
Grandma Moses
Harold and the Purple Crayon
Ida Makes a Movie
Imogen Cunningham: Photographer
Incredible San Francisco Artist's Soapbox Derby
Isabella and the Magic Brush
Maurice Sendak
Mole as a Painter
Mosaic
Mural on our Street
A Picture for Harold's Room
Picture Gallery

BOOKS FOR TODAY

Atherton, Mark K. Touch With Your Eyes
Baker, Alan. Benjamin's Portrait
Baum, Arline and Joseph. Opt
Beard, Henry (ed.). Miss Piggy's Treasury of Art Masterpieces
Baylor, Byrd. When Clay Sings
Bitossi, Sergio. Vincent Van Gogh
Broger, Achim. Francie's Paper Puppy
Cavnna, Betty. Paintbox Summer
Cazet, Denys. Frosted Glass
Clement, Claude. The Painter and the Wild Swans
Cohen, Miriam. No Good in Art
Davidson, Marshall. The History of Art
Ernst, Lisa Campbell. Hamilton's Art Show
Fowler, Carol. Art
Freeman, Don. Chalk Box Story

Goffstein, M.B. Artist
Goffstein, M.B. Artist's Album
Johnson, Crockett. Harold and the Purple Crayon
Johnson, Crockett. A Picture for Harold's Room
Lepscky, Ibi. Leonardo da Vinci
Lepscky, Ibi. Pablo Picasso
Measham, Terry. Picasso
Measham, Terry. Van Gogh
Munnz, Ludwig and B. Haak. Rembrandt
Pinkwater, Manus. The Bear's Picture
Pinkwater, Manus. The Big Orange Splot
Sachs, Marianne. Leonardo
Small, David. Paper John
Spier, Peter. Oh, Were They Ever Happy!
Williams, Vera B. Cherries and Cherry Pits

WRITE, WRITE, WRITE!

Authors and poets, storytellers and writers -- these are stargazers of the highest order. The creativity and imagination of these people have given the world pleasure and information through their works. The writers of yesterday and today can be joined by the writers of tomorrow as the children explore their own imaginations and create.

WHO WROTE THAT?

Materials: Pencil, paper
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

What would Little Miss Muffet sound like if it had been written by Alfred Hitchcock? What about Bambi written by a famous hunter? Let the group create stories written by someone else.

Suggestions:

TITLE	AUTHOR
Jack and the Beanstalk	The Giant
Cinderella	The Prince
Little Miss Muffet	Hitchcock
Bambi	A hunter
Heidi	Steven King
The Gingerbread Man	Shakespeare

HAIKU POETRY

Materials: Pencil, paper
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

Haiku poetry is short and simple and follows a set pattern. The first line consists of 5 syllables giving the setting of the poem. The second line consists of 7 syllables giving the action of the poem. The third line consists of 5 syllables giving the conclusion or mood of the poem. Let the group create their own poetry. This is an ideal time to display some work on the bul letin board!

Sample:
Over the mountain,
Flying high and soaring low,
Living in the wind.

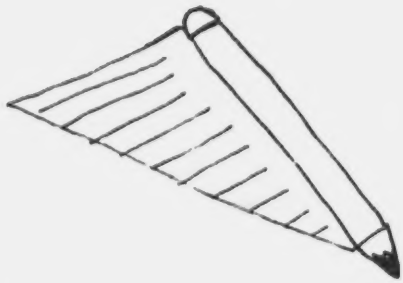
Variation: You may want to decorate the creation with oriental-style paintings.

WRITING WITH A QUILL PEN

Materials: Construction paper, scissors, pencil, tape
Grade Level: K-3
Preparation Required: None
Supervision Required: Some

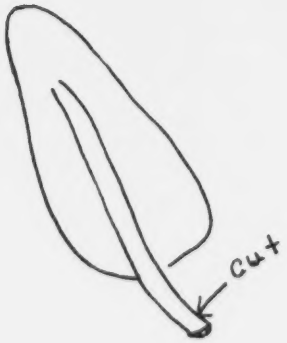
Follow pattern to make a quill 'pen' for the children to use.

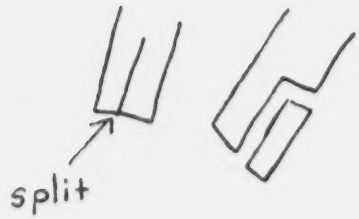
Roll paper around pencil

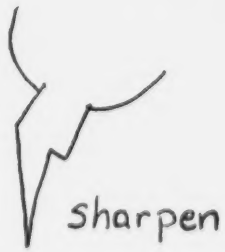


Materials: Turkey feather, scissors, ink
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

Follow the pattern to make an authentic quill pen.
Practice writing with it.







ADD ON STORY

Materials: None
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

One person starts a story. Just when he gets to an exciting point, he stops. Now the next person takes up the story. When he reaches an exciting point, he stops and turns the story over to the next person. Continue until all have had a chance to add to the story. The last person in the group must end the story.

IMAGINE THAT!

Materials: Box full of several items such as a brush, a pencil, a glass, a shoe, etc.
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

Have the child choose an item from the box. Make up a story about the item. Perhaps a story of where the item came from or what it could be used for.

Variation: For older children, have them choose 3 items to make up a story.

THE MIDDLE OF A STORY

Materials: An unfamiliar story book, paper, pencil, crayons
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

Read the middle 3-5 pages of an unfamiliar story. Have the group make up a beginning and ending to the story. Illustrate it. It's surprising how many different stories you will get.

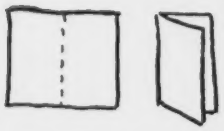
POSITIVE POEM

Materials: Pencil, paper
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

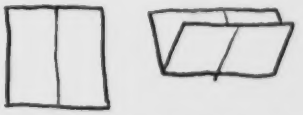
Write your name in a column down the paper. Using the letters of you name, write a poem about yourself.
Example: Chris is fun to know
His hair is as white as snow
Rain or shine
It's very fine
Seeing where he'll go.

MINI-BOOK

Materials: Rectangular sheet of paper, scissors, hole punch, yarn
Grade Level: K-4
Preparation Required: You may want to prepare several ahead of time.
Supervision Required: If you let the kids prepare them--LOTS!



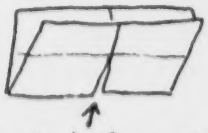
1. Fold paper lengthwise.



2. Unfold. Fold crosswise.

3. Fold crosswise again

4. Unfold back to step 2.



5. Cut a slit halfway up middle

6. Unfold and fold lengthwise with slit at top.

7. Grasp at either end and push together.

8. Fold on one edge to make book.

9. Punch 2 holes in edge and tie strings in.

STORY STARTERS

Materials: Pencil, paper, crayons
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

Story starters are short suggestions to spark the imagination of the budding writer. Try some of the following:

The day the moon fell into the lake
The morning Red disappeared
The three-eyed monster from Chicago
How I got to be famous
The jelly-bean man meets Frankenstein
The blue dog
The cat with one orange eye
The worn-out teddy bear
The elephant with no trunk
The day Mother went on strike
The painter who lost his paintbrush
My life as a sneaker
If I were a millionaire
The green ice cube
The fly with only one wing
The bear who couldn't sleep
The two-headed horse and the little girl
How to build a better robot
The record that wouldn't play
The flat basketball
Flying across the mountains
The jungle full of monkeys
The circus without a clown
The first dog on the moon
Eating soup with a fork
The rainbow colored pony

Once the stories have been written, illustrate and display them!

THESAURUS POETRY

Materials: Thesaurus, pencil, paper
Grade Level: 4-up
Preparation Required: None
Supervision Required: None

Take a familiar poem and use the thesaurus to make it into an interesting new poem. Try this one: Propel, propel, propel your craft, Placidly down the solution. Ecstatic, ecstatic, ecstatic, ecstatic, Existence is but an illusion. Sound familiar? (It was Row, Row, Row Your Boat!)

NAMES TO CONSIDER

Hans Christian Andersen
Maurice Sendak
Robert Browning
Judy Blume
William Shakespeare
Aesop
Robert Louis Stevenson
Charles Dickens

BOOKS FOR TODAY

Aliki. How a Book is Made
Andersen, Hans Christian. Andersen's Fairy Tales
Ardizzone, Edward. Ardizzone's Hans Andersen
Baker, Cicely Mary. Children's Book of Rhymes
Burch, Robert. King Kong and Other Poets
Cohen, Daniel. Carl Sagan
Collins, Tom. Stephen Spielberg
Cooper, Jeffrey. Robin in the Apple
Drescher, Henrik. Simon's Book
Goffstein, M.B. A Writer
Grover, Eulalie O. Robert Louis Stevenson
Johnson, Spencer. The Value of Fantasy
Johnson, Spencer. The Value of Imagination
Marshall, James. Rapscallion Jones
Maybery, D.L. George Lucus
Maybery, D.L. Stephen Spielberg
Moore, Eva. The Fairy Tale Life of Hans Christian Andersen
Naylor, Phyllis Reynolds. How I Became a Writer
Norton, Andre and Donaldy, Ernestine. Gates to Tomorrow
Oldham, June. Grow up Cupid
Quackenbush, Robert. Who Said There's No Man on the Moon?
Turner, Dorothy. William Shakespeare

FILMS FOR TODAY

Aesop's Fables
Children's Author: Judy Blume
Hailstones and Halibut Bones
How the First Letter was Written
Maurice Sendak
Poetry for Fun: Trulier Coolier
Story of my Life: Hans Christian Andersen
Ugly Duckling

HUM A FEW BARS

Where would the world be without music? From the old masters to today's contemporary writers. Music can make you feel happy or sad. It can make you fall in love or remember times past. Almost as much fun as listening to music is making music. Today is a day to explore sounds and to make instruments to create music on.

HOW DO YOU FEEL?

Materials: Records or tapes, record player or tape deck
Grade Level: K-up
Preparation Required: Preview your tapes or records so you know where your songs are located.
Supervision Required: Minimum

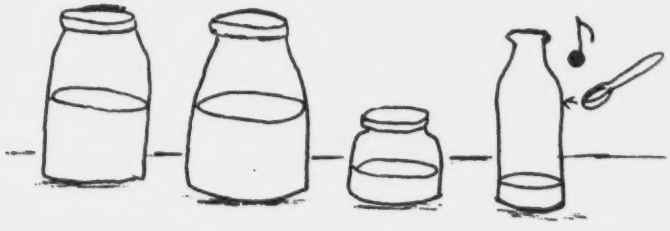
Music is like art. It can make you feel certain ways by its speed or volume. Play various songs and tunes and let the children tell how it makes them feel.
Variations: 1. Move to the music. Have the group walk, march, or run to express their feelings. 2. Make-a-face: use facial expressions to show the mood of the music. 3. Draw to the music to show how they feel.

MUSICAL INSTRUMENTS

BOTTLE MUSIC

Materials: Bottles or jars, spoons, water
Grade Level: K-up
Preparation Required: Prepare area with towels for spills
Supervision Required: Younger children: 1 helper for every 5 to 10 children. Older children: Minimum

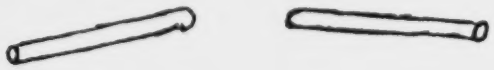
Fill the jars of bottles to various heights with water. By tapping the sides with the spoons you can make music.
Variation: Use cola bottles filled with water. Blow across the tops like a flute. (This may prove to be too difficult for the younger children.)



PERCUSSION INSTRUMENTS

Materials: Each instrument will have materials listed
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger children: 1 helper for every 5 to 10 children. Older children: Minimum

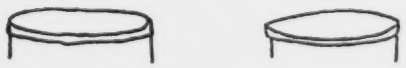
Rhythm sticks: Use dowel rods or sticks



Wrist bells: Sew jingle bells onto ribbon

Maracas: Put a few dried beans into a plastic bottle

Drums: Coffee cans



Shakers: Staple two paper plates together with a few dried beans inside

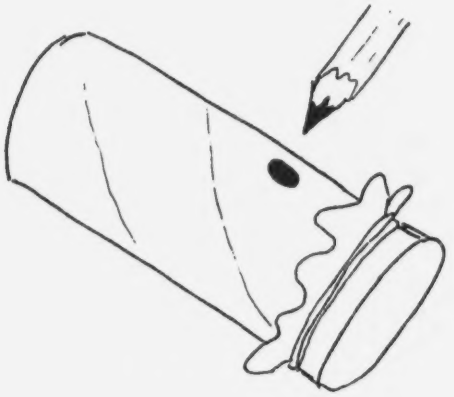
Chimes: Hang various sized cans from string and hit with a spoon

Castanets: Tie strings through the holes of 2 buttons leaving a loop for fingers. Insert fingers and tap them together.

KAZOOS

Materials: Cardboard tubes, wax paper, pencil, rubber band
Grade Level: K-5
Preparation Required: None
Supervision Required: 1 helper for every 5 to 7 children

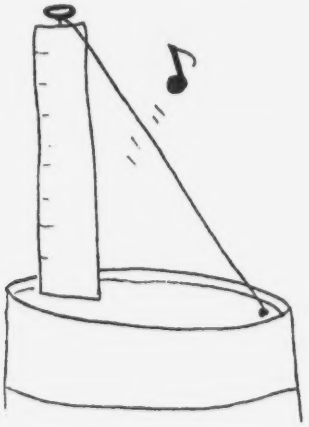
Use pencil to punch a hole 1 inch from end of tube. Cover same end with wax paper and secure with rubber band. Hum into other end to make music. The hole can be covered and uncovered to vary the sound.



BASS FIDDLE

Materials: Ruler, string or wire, tack, gallon can, icepick
Grade Level: 3-up
Preparation Required: None
Supervision Required: 1 helper for every 5 to 10 children (be very watchful when using icepick.)

Punch hole in top edge of can. Insert string or wire and knot to secure. Tack other end of string to top of ruler. Place ruler on top of can. By pulling the ruler back and forth you will vary the tone of the music.



NAMES TO CONSIDER

Beethoven
Bruce Springsteen
Mozart
Gilbert and Sullivan
Gershwin
Bach
Bob Dylan

BOOKS FOR TODAY

Aaseng, Nathan. Bob Dylan: Spellbinding Songwriter
Carle, Eric. I See a Song
Cross, Gillian. Chartbreaker
Duder, Tessa. Jellybean
Hankin, Rebecca. I Can Be a Musician
Hello Rhythm
Johnson, Spencer. The Value of Giving
Kendall, Alan. Mozart
Lepscky, Ibi. Amadeus Mozart
Lionni, Leo. Geraldine the Music Mouse
Marri, Noemi Vicini. Ludwig Van Beethoven
Millar, Cynthia. Bach
Schick, Eleanor. A Piano for Julie
Selden, George. The Cricket in Times Square
Singer, Marilyn. Lizzie Silver of Sherwood Forest
Stadler, John. Hector, the Accordion-nosed Dog.
Stevens, Bryna. Ben Franklin's Glass Armonica
Williams, Vera B. Music for Everyone

FILMS FOR TODAY

Ballet Robotique
The Band Concert
The Bremen Town Musicians
Cat and the Fiddler
Chord Sharp
The Concert
Copland Portrait
The Cricket and the Violin
The Cricket in Times Square
Design to Music
It's a Hobby for Harvey
Magic and Music
The Magnificent Music Machines
Melody
The Mole and the Music
Toot, Whistle, Plunk, and Boom
W.A. Mozart

IT'LL NEVER FLY, ORVILLE!

Even before the historic flight at Kitty Hawk, people were attempting to fly like the birds. They strapped themselves into various contraptions and jumped off cliffs and buildings to get airborne. With the invention of the lighter-than-air balloons and the airplane, people had a new frontier to explore...that of the air. With the use of these creations they explored well and are still innovating and improving them. Today is a day for airplanes and air travel.

COME FLY WITH ME

Materials: Crayons, paper
Grade Level: K-up
Preparation Required: None
Supervision Required: Minimum

When airplanes were first invented people were invited to ride in them. Have the children draw colorful posters advertising plane rides.

BALLOON LAUNCH

Materials: 1 helium balloon for each child, pencil, forms, string
Grade Level: K-up
Preparation Required: Fill balloons, run off forms
Supervision Required: 1 helper for every 5-10 children

Let the children explore the air by sending a message up in a balloon. Copy the form so each person will have one. Fill in the blanks. Tie the message to the balloon and launch. It will be fun to see how many people get responses to their balloons.

Sample form:

To the finder of this message: HI! I am an explorer from the _____Library. My name is _____. Our summer reading Club is having fun reading about Trailblazers and Stargazers. Please fill out this card and send it to me at my library. We would like to know how far it went. Thank you.

Name_____ City_____

Who is your favorite explorer?_____
Please return to this address:

_____

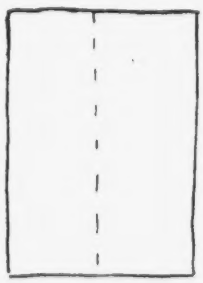
QUICK GLIDER

Materials: Paper
Grade Level: K-up
Preparation Required: None
Supervision Required: Younger children: 1 helper for every 4 to 6.
Older children: Minimum

1. Fold paper lengthwise down the middle, then unfold it.
2. Fold the 2 upper corners towards the center and crease into place.
3. Fold point A to middle and crease. Repeat for point B.
4. Re-fold along middle crease.
5. Fold top side so it touches bottom edge. Repeat for other side.
6. Fly!

Have races! Throw for distance! Color and decorate them!

1.



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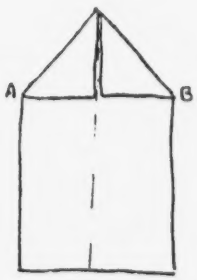

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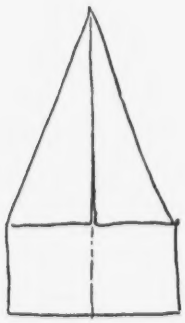

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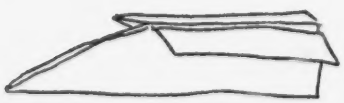


PUPPET PLAY

Materials: 2 puppets, stage, paper airplane
Grade Level: K-4
Preparation Required: Practice before presenting!
Supervision Required: Minimum

ENTER PUPPET #1 WITH PLANE

#1: Boy oh boy! I've done it this time! No one will believe it! I've finally invented something that will make me famous!

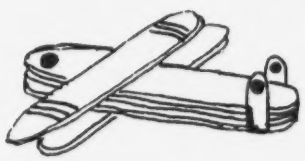
ENTER PUPPET #2

#2: Hi there! What are you doing?
#1: I am becoming famous!
#2: Oh really? How?
#1: I have invented a flying machine!
#2: A flying machine? You're crazy! Man has been trying to build a flying machine for years. What makes you think you have done it?
#1: Look at this! This is a model of it. It flies.
(Throw plane off stage)
#2: Pretty good! But what use is it?
#1: You ride on it.
#2: Really? Bring that thing back here.
(#1 retrieves plane)
(Puppet #2 sits on plane.)
#2: It'll never fly, Orville!
EXIT

POPSICLE AIRPLANE

Material: Popsicle sticks, glue, crayons
Grade Level: K-3
Preparation Required: None
Supervision Required: 1 helper for every 4-6 children

Glue 6 sticks in a stack for the body.
Break 1 stick in half and glue on to either side for tail.
Glue 2 sticks to body for top wing and 2 for bottom.
Dry and decorate.



BUILD A JET

Materials: Paper towel tube, Blue construction paper, white tissues, glue, crayons, clothespins
Grade Level: K-4
Preparation Required: None
Supervision Required: 1 helper for every 4 to 6 [illegible]n

Cover the tube with blue paper. Cut a wing (2 x 12) and glue it into place. Wad tissue and stuff it into tube for smoke. Squeeze the end of the tube closed and glue (use clothespin to hold while it is drying.) Decorate.

LOOK DOWN THERE!

Materials: Crayons, paper
Grade Level: K-4
Preparation Required: None
Supervision Required: Minimum

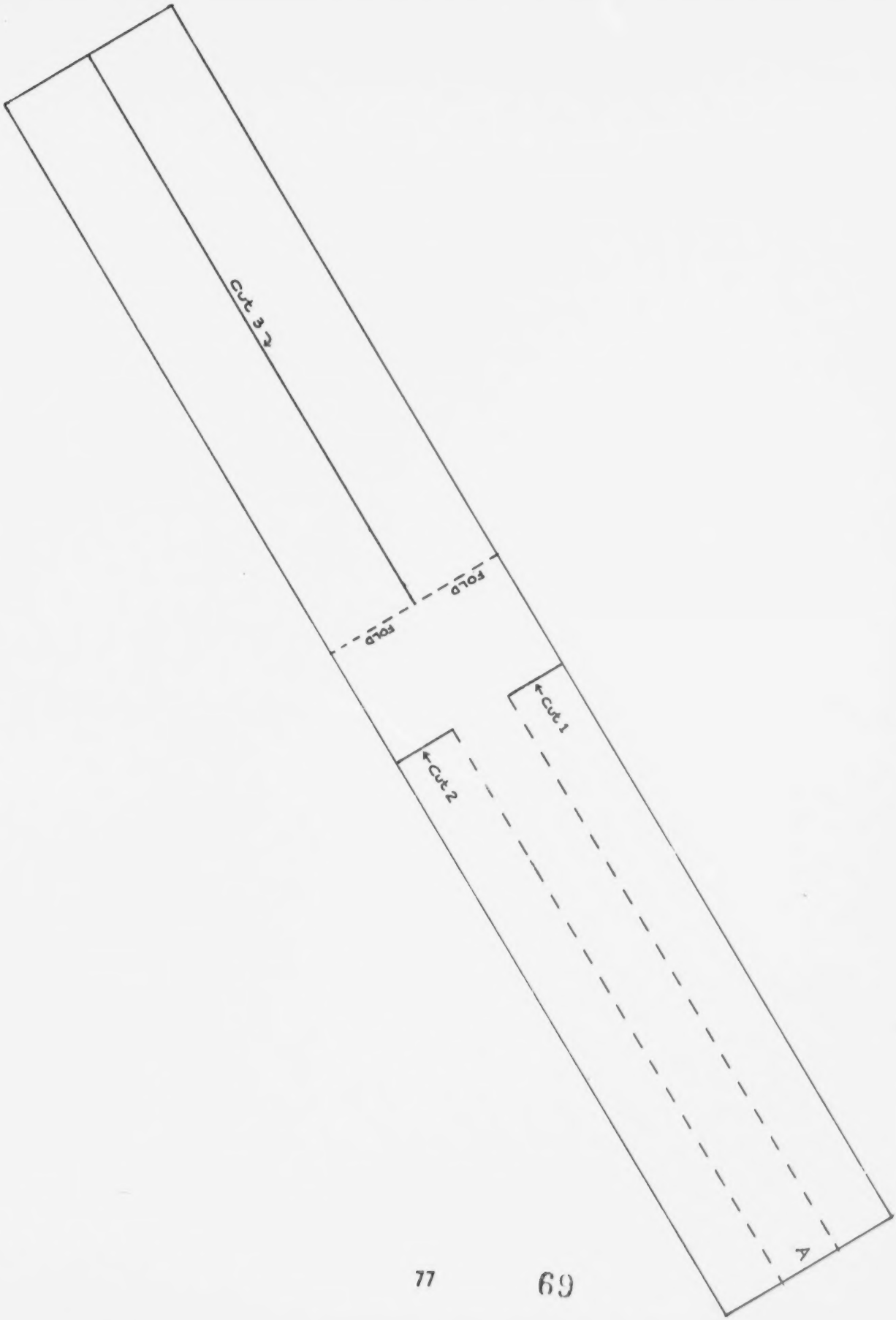
Have the group pretend they are in a plane or a hot-air balloon. Look down and draw the ground as they see it.

PAPER HELICOPTER

Materials: Paper, scissors
Grade Level: 4-up
Preparation Required: None
Supervision Required: Minimum

Follow pattern on the next page to make a helicopter.

1. Cut paper into strip 1 1/2 inches wide and 11 inches long.
2. Following pattern, cut on solid lines.
3. Fold end A up 1/8 inches and crease it well. Do this again (This helps make the ends stiff and adds some weight to the bottom.)
4. Fold on dotted line from End A to cut 1.
5. Repeat from A to cut 2 (the edges will overlap.)
6. Hold by end A with cut 3 pointing upwards. Fold 1 blade toward you and the other away from you.
7. To fly, hold high and drop!


Cut 3
FOLD
FOLD
Cut 1
Cut 2
A

BOOKS FOR TODAY

Ames, Lee J. Draw 50 Airplanes, Aircraft, and Spacecraft
Berger, Michail L. Album of Modern Aircraft Testing
Berliner, Don. Airplanes of the Future
Berliner, Don. Research Airplanes
Brown, Douglas. Flyers
Calhoun, Mary. Hot-air Henry
Cave, Ron and Joyce. Aircraft
Chadwick, Roxane. Amelia Earhart
Chadwick, Roxane. Anne Morrow Lindbergh
Crews, Donald. Flying
Daniels, Patricia (ed.). Let's Discover Flying
Franchere, Ruth. The Wright Brothers
Gaffney, Timothy. Chuck Yeager
Johnson, Spencer. The Value of Patience
Kanetzke, Howard W. Airplanes and Balloons
Linsley, Leslie and Aron, Jon. Air Crafts
McPhail, David. First Flight
Peppe, Rodney. The Mice and the Flying Basket
Phelger, Frederick. Ann Can Fly
Provensen, Alice and Martin. The Glorious Flight Across the Channel with Louis Bleriot
Randolph, Blythe. Amelia Earhart
Spier, Peter. Bored, Nothing to Do
Stein, R. Conrad. The Story of the Flight at Kitty Hawk
Stein, R. Conrad. The Story of the Spirit of St. Louis
Swinburne, Laurence. Riders on the Wind
Todd, Domke. Grounded

NAMES TO CONSIDER

Icarus
Orville Wright
Wilbur Wright
Richard Byrd
Charles Lindbergh
Chuck Yeager
Paul MacCready
Amelia Earhart

FILMS FOR TODAY

Admiral Byrd
Charles Lindbergh
Dawn Flight
Flight of the Gossamer Condor
Icarus
Kites to Capsules
Kitty Hawk to Paris
Quest for Flight
Test Pilot Donald
When Magoo Flew

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Traces the life of one of America's leading songwriters from his childhood through his career.

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Aesop. AESOP FOR CHILDREN. Cameron, 1976. (K-up)
Famous fables from a man of vision.

Ahlbergh, Janet and Allen. JEREMIAH IN THE DARK WOODS. Viking, 1987. (K-3)
Jeremiah goes exploring and finds nursery characters in zany new roles.

Alexander, Alison and Bower, Susie. SCIENCE MAGIC. Prentice, 1987. (K-4)
Science experiments for the young child.

Aliki. HOW A BOOK IS MADE. Crowell, 1986. (K-up)
Follow the making of a book from the author's idea to the finished product.

Ames, Lee J. DRAW 50 AIRPLANES, AIRCRAFT, AND SPACECRAFT. Doubleday, 1977. (2-up)
Step-by-step instructions for drawing 50 different airplanes and spacecraft including a 747.

Ames, Lee J. DRAW 50 BOATS, SHIPS, TRUCKS, AND TRAINS. Doubleday, 1976. (2-up)
Step-by-step instructions for drawing various boats, ships, trucks, and trains.

Ames, Lee J. DRAW 50 CARS, TRUCKS, AND MOTORCYCLES. Doubleday, 1986. (2-up)
Step-by-step instructions for drawing a variety of cars and motorcycles including a Ford Thunderbird, dumptrucks, and minibikes.

Andersen, Hans Christian. ANDERSEN'S FAIRY TALES. Wanderer, 1983. (K-up)
Classic tales from the master storyteller.

Anderson, Joan. THE GLORIOUS FOURTH AT PRAIRIETOWN. Morrow, 1985. (K-4)
A family traveling west by wagon stops to celebrate the Fourth of July.

Andrews, Jan. THE VERY LAST FIRST TIME. Macmillan, 1986. (K-4)
A little girl explores the sea bottom alone for the first time.

Ardizzone, Edward. ARDIZZONE'S HANS ANDERSEN. Macmillan, 1979. (K-up)
Selections by Edward Ardizzone of his favorite Hans Andersen tales with numerous illustrations.

Ardley, Neil. FACT OR FICTION? Watts, 1982. (4-up)
Examines space travel, colonies in space, cloning, time travel and other futuristic possibilities.

Ardley, Neil. HEALTH AND MEDICINE. Watts, 1982. (4-up)
Discusses the possibilities for future in medicine based on the work being done today.

Ardley, Neil. OUT INTO SPACE. Watts, 1982. (K-4)
Predicts the course of future developments in space exploration and travel based on advances that have been made since the first moon landing in 1969.

Arno, Roger. THE STORY OF SPACE AND ROCKETS. Bellerophon, 1978. (4-up)
The history of space exploration.

Artman, John. EXPLORERS. Good Apple, 1986. (K-4)
A simple book to begin with on world explorers.

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The story of unaccompanied refugee youths in America.

Asimov, Isaac. HOW DID WE FIND OUT ABOUT COMPUTERS? Walker, 1985. (4-7)
The history of the computer from the abacus to today.

Asimov, Isaac. HOW DID WE FIND OUT ABOUT OUTER SPACE? Walker, 1977. (4-up)
Space travel from air balloons to the moon trip.

Asimov, Isaac. HOW DID WE FIND OUT ABOUT ROBOTS? Walker, 1984. (4-7)
Traces the development of the robot from the automatic clock to the microchip and discusses scientific and industrial uses of the robot today.

Asimov, Isaac. HOW DID WE FIND OUT ABOUT THE UNIVERSE? Walker, 1983. (4-up)
Deals with discoveries of ancient and modern astronomers.

Asimov, Isaac. THINKING MACHINES. Raintree, 1981. (4-7)
Five stories about fictitious capabilities of computers and robots.

Asimov, Isaac. WILD INVENTIONS. Raintree, 1981. (5-up)
Short stories about how the machine could change our lives.

Atherton, Mary K. TOUCH WITH YOUR EYES! Orinda Art, 1982. (K-up)
Explore art with vision.

Atkinson, Ian. THE VIKING SHIPS. Cambridge, 1979. (4-up)
Discusses the construction and uses of different types of Viking ships.

Bailey, Mark W. ELECTRICITY. Raintree, 1978. (K-3)
The different ways of producing and using electricity.

Baker, Alan. BENJAMIN'S PORTRAIT. Lothrop, 1987. (K-3)
Benjamin the hamster thinks painting is easy until he gives it a try.

Baker, Cicely Mary. CHILDREN'S BOOK OF RHYMES. Bendrick, 1987. (K-up)
A re-issue of a book originally published 50 years ago containing traditional rhymes and verses.

Barrett, N.S. SPACE SHUTTLE. Watts, 1985. (K-6)
Simple text and lots of pictures tell the story of the space shuttle.

Barrett, Norman. ASTRONAUTS. Watts, 1986. (K-6)
The story of men of adventure for all ages.

Baum, Arline and Joseph. OPT: AN ILLUSIONARY TALE. Viking, 1986. (K-4)
You won't believe your eyes when you enter the magical kingdom of OPT.

Baum, L. Frank. THE WIZARD OF OZ. Dover, 1960. (3-up)
Classic tale of imagination and adventure.

Beard, Henry (ed.). MISS PIGGY'S TREASURY OF ART MASTERPIECES: FROM THE KERMITAGE COLLECTION. H. Holt, 1984. (K-4)
Light-hearted look at art.

Baylor, Byrd. WHEN CLAY SINGS. Scribner, 1972. (K-4)
The art of southwestern Indian pottery designs.

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Allows the reader to imagine being an astronaut.

Behrens, June. SALLY RIDE, ASTRONAUT. Childrens, 1984. (K-4)
The biography of an astrophysicist who flew into space.

Behrman, Carol H. THE REMARKABLE WRITING MACHINE. Messner, 1981. (3-5)
The story of the invention of the typewriter.

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Set during the time of the Vikings, this is the story of Snorri, the first white child born in America.

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Short explanation of 1000 inventions.

Berger, Melvin. EXPLORING THE MIND AND BRAIN. Crowell, 1983. (5-up)
Studies in medical research.

Berger, Melvin. SPACE SHOTS, SHUTTLES, AND SATELLITES. Putnam, 1984. (4-up)
Discusses the first 25 years of the space program including what is happening now and what is planned for the future.

Berger, Michail L. ALBUM OF MODERN AIRCRAFT TESTING. Watts, 1981. (4-up)
The men and methods behind modern aircraft.

Berliner, Don. AIRPLANE OF THE FUTURE. Lerner, 1986. (4-up)
What type aircraft will the future produce?

Berliner, Don. RESEARCH AIRPLANES: TESTING THE BOUNDARIES OF FLIGHT. Lerner, 1987. (4-up)
Story of aircraft built for research and how many have become models for present and future craft.

Birkett, Alaric. VIKINGS. Dufour, 1985. (5-up)
The story of some of the earliest explorers of the new world.

Bitossi, Sergio. FERDINAND MAGELLAN. Silver, 1985. (4-up)
The story of why Magellan became famous.

Bitossi, Sergio. VINCENT VAN GOGH. Silver, 1986. (4-up)
The story of a creative artist.

Blocksma, Mary and Dewey. EASY-TO-MAKE SPACESHIPS THAT REALLY FLY. Prentice-Hall, 1985. (2-6)
Directions for space ships that can be made without adult supervision from paper plates, straws, cups, and other everyday items.

Blos, Joan W. MARTIN'S HATS. Morrow, 1984. (K-4)
The story of a pre-school-aged Walter Mitty.

Booth, Eugene. UNDER THE OCEAN. Raintree, 1977. (K-3)
Colorful book with simple text encourages thought about what is happening on the ocean bottom.

Bornstein, Ruth. JIM. Seabury, 1978. (K-3)
Jim the dog searches for his father who has not returned from a day of exploring.

Bornstein, Ruth. OF COURSE A GOAT. Harper, 1980. (K-4)
A boy dreams of journey to the top of a mountain.

Bostrom, Ronald. CAMERAS. Raintree, 1985. (4-up)
The history of the basic camera.

Brandt, Keith. DANIEL BOONE: FRONTIER ADVENTURER. Troll, 1983. (4-up)
The story of the famous wilderness scout.

Brandt, Keith. MARIE CURIE: BRAVE SCIENTIST. Troll, 1983. (4-up)
The story of the scientist emphasizing the struggle before the success.

Branley, Franklyn M. FROM SPUTNIK TO SPACE SHUTTLE. Crowell, 1986. (3-6)
Story of exploration of space from the first satellite to the modern space shuttle.

Branley, Franklyn M. SPACE COLONY: FRONTIER OF THE 21ST CENTURY. Lodestar, 1982. (4-up)
Tells of life in a space colony via letters from colonists.

Branley, Franklyn M. TIMMY AND THE TIN-CAN TELEPHONE. Crowell, 1959. (K-4)
The adventures of a little boy and his tin-can telephone. Includes instructions for making a tin-can telephone.

Brenner, Barbara. WAGON WHEELS. Harper, 1984. (K-3)
The story of three little boys who set out alone across the prairie to rejoin their father.

Broger, Achim. FRANCIE'S PAPER PUPPY. Picture Books Studio, 1984. (K-4)
Francie makes a paper puppy and treats it like a real dog.

Brown, Bob. SCIENCE TREASURES. Fleet, 1968. (4-up)
Leads reader through some famous science experiments.

Brown, Douglas. FLYERS. Silver, 1982. (4-up)
The story of several pioneers of the air told through diaries and personal accounts.

Brownlee, W.D. THE FIRST SHIPS AROUND THE WORLD. Lerner, 1977. (5-up)
The story of early exploration of the globe.

Buchanan, Heather S. GEORGE MOUSE'S COVERED WAGON. Dial, 1987. (K-3)
George reflects the courageous spirit of early frontiersmen.

Burch, Robert. KING KONG AND OTHER POETS. Viking, 1986. (4-up)
Marilyn wins a writing contest and is named poet laureate of her class.

Burningham, John. WHERE'S JULIUS? Crown, 1987. (K-4)
A story of a little boy with a big imagination and an understanding family.

Byars, Betsy. THE GOLLY SISTERS GO WEST. Harper, 1986. (K-3)
The Golly sisters are all ready to go but the horse won't move.

Calhoun, Mary. HOT AIR HENRY. Morrow, 1981. (K-3)
A Siamese cat soars into adventure in a hot air balloon.

Carle, Eric. I SEE A SONG. Crowell, 1973. (K-3)
What can you see in a song?

Caselli, Giovanni. A VIKING SETTLER. P. Bendrick, 1986. (3-up)
Story of one of the earliest settlers of America.

Castle, Caroling. HERBERT BINNS AND THE FLYING TRICYCLE. Dial, 1987. (K-4)
Herbert the mouse is an inventor building his masterpiece despite his friends' misgivings.

Cavanna, Betty. PAINTBOX SUMMER. Buccaneer, 1981. (4-up)
A summer full of art and fun.

Cave, Ron and Joyce. AIRCRAFT. Watts, 1982. (K-3)
A simple story of aircraft.

Cave, Ron and Joyce. WHAT ABOUT...SPACE SHUTTLE? Watts, 1982. (K-3)
Brief text and supplementary questions and answers discuss various aspects of the space shuttle including lift off, flight, and history.

Cave, Ron and Joyce. WHAT ABOUT...SUBMARINES? Watts, 1982. (K-3)
Simple text with questions and answers deal with various aspects of the submarine and other underwater craft.

Cazet, Denys. FROSTED GLASS. Bradbury, 1987. (K-3)
Gregory is a dreamer and a doodler but his picture makes a good impression with his teacher.

Cervantes, Miguel de. DON QUIXOTE. Silver, 1984. (4-up)
One of the original dreamers rides out to adventure.

Ceserani, Gian P. MARCO POLO. Putman, 1982. (2-5)
Richly illustrated book on the explorer.

Chadwick, Roxane. AMELIA EARHART: DARING FLIER. Lerner, 1986. (3-up)
The story of Earhart's life from her childhood through her trans-Atlantic flight to her tragic disappearance.

Chadwick, Roxane. ANNE MORROW LINDBERGH: PILOT AND POET. Lerner, 1986. (3-up)
The story of Mrs. Charles Lindbergh from her sheltered childhood to her life with the world-famous aviator.

Chambers, Catherine E. FRONTIER DREAM: LIFE ON THE GREAT PLAINS. Troll, 1984. (5-up)
Story of life on the frontier from explorers to settlers.

CHOOSE-YOUR-OWN-ADVENTURE series. Bantam. (4-up)
Series of books that let the reader explore different plot twists and possibilities.

Chukovsky, Korney. THE TELEPHONE. Imported Pub., 1982. (K-4)
An author's telephone rings constantly interrupting his work.

Clark, James I. CARS. Raintree, 1981. (4-up)
An overview of the engine plus some new alternatives in fuel that are being developed.

Clark, James I. THREE YEARS ON THE OCEAN. Raintree, 1982. (4-up)
How Joshua Slocum attempted to sail around the world alone in 1985.

Clarke, Helen. THE VIKINGS. Watts, 1984. (4-up)
The history of the explorations of the Vikings.

Clement, Claude. THE PAINTER AND THE WILD SWANS. Dial, 1987. (4-up)
An artist is bewitched by the beauty of the wild swans and longs to become one of them.

Clendinen, Dudley. A PATH TO THE STARS. Knopf, 1986. (5-up)
The story of Challenger V astronaut Ron McNair.

Cobb, Vicki. MORE SCIENCE EXPERIMENTS YOU CAN EAT. Lippincot, 1979. (4-up)
Various science experiments you can eat when completed.

Cobb, Vicki. BET YOU CAN!: SCIENCE POSSIBILITIES TO FOOL YOU. Avon, 1983. (4-up)
Experiments with science that will amaze the reader.

Cobb, Vicki. BET YOU CAN'T: SCIENCE IMPOSSIBILITIES TO FOOL YOU. Lothrop, 1980. (4-up)
Experiments that seem easy but will result in failure every time.

Cohen, Barbara. GOOSEBERRIES TO ORANGES. Lothrop, 1982. (K-4)
8-year-old Fanny's trip to America from her war-devastated village in Eastern Europe.

Cohen, Daniel. CARL SAGAN: SUPERSTAR SCIENTIST. Dodd, 1987. (4-up)
Biography of modern scientist and author.

Cohen, Daniel. THE LAST HUNDRED YEARS: HOUSEHOLD TECHNOLOGY. M. Evans, 1982. (4-up)
The evolution of inventions in household technology

Cohen, Daniel. THE LAST HUNDRED YEARS: MEDICINE. M. Evans, 1981. (4-up)
Some of the medical discoveries of the past hundred years.

Collins, Tom. STEVEN SPIELBERG: CREATOR OF E.T. Dillon, 1983. (3-up)
Have a talk with one of today's most imaginative movie-makers.

Cooper, Jeffery. ROBIN IN THE APPLE. Fawcett, 1986. (4-up)
A would-be poet moves to New York to work and live.

Cousins, Margaret. BEN FRANKLIN OF OLD PHILADELPHIA. Random, 1981. (4-up)
A lively biography of Benjamin Franklin.

Cremaschi, Gabriella. ALBERT SCHWEITZER. Silver, 1985. (4-up)
The story of why Albert Schweitzer became famous.

Crews, Donald. FLYING. Greenwillow, 1986. (K-2)
Colorful flight over the earth.

Cross, Gillian. CHARTBREAKER. Holiday, 1987. (5-up)
Talented Janis Finch runs away and joins a rock band.

Crump, Donald J. SMALL INVENTIONS THAT MADE A BIG DIFFERENCE. National Geographic, 1984. (3-up)
Colorful stories behind small inventions.

Cummings, Pat. C.L.O.U.D.S. Lothrop, 1986, (K-4)
Chuku the angel creates dazzling cloud formations over New York to please a little girl.

Dahl, Roald. CHARLIE AND THE CHOCOLATE FACTORY. Bantam, 1986. (4-up)
The fantastic story of Willie Wonka, inventor of chocolates.

Dalgliesh, Alice. THE COURAGE OF SARAH NOBLE. Macmillan, 1986. (4-up)
Story of a girl in the Connecticut wilderness.

Daniels, Patricia. (ed.) LETS' DISCOVER FLYING. Raintree, 1981. (K-3)
Simple language and colorful pictures explore balloons and airplanes with projects included.

Daniels, Patricia. (ed.) LET'S DISCOVER LAND TRAVEL. Raintree, 1981. (K-3)
From carts and bikes to trucks and subways.

Daniels, Patricia. (ed.) LET'S DISCOVER OUTER SPACE. Raintree, 1981. (K-3)
Explore the solar system and astronomy with modern and ancient men.

Daniels, Patricia. (ed.) LET'S DISCOVER SHIPS AND BOATS. Rain tree, 1981. (K-3)
Simple text explores various types of ships and boats.

Daniels, Patricia. (ed.) LET'S DISCOVER THE WORLD OF MACHINES. Raintree, 1981. (K-3)
Simple and colorful book of machines in the home, farm, construction, and factories.

d'Aulaire, Ingri and Edgar. COLUMBUS. Doubleday, 1987. (K-4)
Pictorial biography of Christopher Columbus

Davidson, Margaret. LOUIS BRAILLE. Scholastic, 1987. (4-up)
The story of the 15-year-old boy who invented a way for the blind to read.

Davidson, Margaret. THE STORY OF THOMAS ALVA EDISON. Scholastic, 1987. (4-up)
The fascinating biography of a famous inventor.

Davidson, Marshall. THE HISTORY OF ART. Random, 1984. (4-up)
Over 200 photographs of art from the pre-historic times to today.

DeLage, Ida. PILGRIM CHILDREN ON THE MAYFLOWER. Garrard, 1980. (4-up)
Story of children who came to America.

Demi. ADVENTURES OF MARCO POLO. H. Holt, 1982. (K-4)
Story of the world explorer.

DePaola, Tomi. OLIVER BUTTON IS A SISSY. Harcourt, 1979. (K-3)
Oliver faces taunting from his friends because of his love of dancing.

DISCOVERERS, THE. (Living Past Series). Arco, 1979. (4-up)
Short selections on famous discoverers.

Donahue, Marilyn Cram. STRAIGHT ALONG THE CROOKED ROAD. Walker, 1985. (4-up)
Story of a young girl on her family's trek to the west.

Drescher, Henrik. SIMON'S BOOK. Lothrop, 1983. (K-3)
Simon goes to sleep and the story he was writing continues to write itself.

Duder, Tessa. JELLYBEAN. Viking, 1987. (4-up)
Geraldine goes with her mother to her orchestra rehearsals and dreams of becoming a conductor.

Duncan, Riana. IF YOU WERE A--. Barrons, 1987. (K-3)
A boy imagines changing into different animals.

Dwiggins, Don. FLYING THE FRONTIERS OF SPACE. Dodd, 1982. (5-up)
History of aircraft preceding the space shuttle.

Ernst, Lisa Campbell. HAMILTON'S ART SHOW. Lothrop, 1986. (K-4)
Inspired by a book on artists, Hamilton starts to paint.

Evard, Gaetan. HOW I CURED DON QUIXOTE, BY DOCTOR SANCHO PANZA. Silver, 1987. (K-5)
A new telling of the story of Don Quixote through the eyes of his faithful companion Sancho.

Farr, Naunerle. THE NEW WORLD. Pendulum, 1977. (3-up)
The discovery and exploration of the new world.

Ferrell, Keith. H.G. WELLS: FIRST CITIZEN OF THE FUTURE. M. Evans, 1983. (6-up)
The story of a man whose novels predicted the future.

Finney, Susan and Kindle, Patricia. ANTARCTIC EXPLORATIONS. Good Apple, 1985. (4-up)
Story of antarctic explorations past and present.

Foster, Genevieve. THE YEAR OF COLUMBUS. Macmillan, 1969. (2-6)
Tells of Columbus and others of his time.

Fowler, Carol. ART. Dillon, 1976. (4-up)
Short biographies of some of the creative women in art.

Fradin, Dennis. MOON FLIGHTS. Childrens, 1985. (K-4)
Simple explanation of moon flights.

Franchere, Ruth. THE WRIGHT BROTHERS. Crowell, 1972. (K-5)
The story of the Wright brothers and their inventions.

Freeman, Don. CHALK BOX STORY. Harper, 1976. (K-3)
The chalks in a chalk box draw pictures and tell a story.

Fritz, Jean. WHAT'S THE BIG IDEA, BEN FRANKLIN? Putnam, 1982. (2-6)
Colorful story of Benjamin Franklin and his ideas.

Fritz, Jean. WHERE DO YOU THINK YOU'RE GOING, CHRISTOPHER COLUMBUS? Putnam, 1980. (3-up)
Pictorial biography of Columbus and his journeys.

Gackenbach, Dick. DOG FOR A DAY. Clarion, 1987. (K-4)
Sidney invents a changing box and changes places with his dog Wally.

Gaffney, Timothy R. CHUCK YEAGER: FIRST MAN TO FLY FASTER THAN SOUND. Childrens, 1986. (4-up)
Biography of pioneer of supersonic flight.

Gaffney, Timothy R. JERROD PETROFSKY: BIOMEDICAL PIONEER. Childrens, 1984. (4-up)
The story of a young medical man who uses computers and electrical impulses to help paralyzed limbs.

Garibaldi, Gerald. HE GAVE HIMSELF TO THE SEA. Raintree, 1982. (4-up)
A French doctor sets out to sea without any provisions.

Gibson, Michael. THE VIKINGS. Silver, 1977. (4-up)
The explorations of the Vikings.

Gleasner, Diana. THE MOVIES. Walker, 1983. (4-up)
The history of moviemaking and moviemakers.

Gleiter, Jan and Thompson, Kathleen. DANIEL BOONE. Raintree, 1984. (K-4)
Colorful story of a frontier explorer.

Gleiter, Jan and Thompson, Kathleen. JOHNNY APPLESEED. Raintree, 1986. (K-4)
The colorful story of an American pioneer.

Goennel, Heidi. WHEN I GROW UP. Little, 1987. (K-3)
Colorful scenes of children in their favorite grown-up dreams.

Goffstein, M.B. ARTIST. Harper, 1980. (K-4)
The simple tale of an artist.

Goffstein, M.B. ARTIST'S ALBUM. Harper, 1985. (K-4)
Take a look into an artist's album.

Goffstein, M.B. LITTLE SCHUBERT. Godne, 1985. (2-up)
The life of a budding musician.

Goffstein, M.B. A WRITER. Harper, 1984. (K-4)
The simple story of a writer.

Gollomb, Joseph. ALBERT SCHWEITZER: GENIUS IN THE JUNGLE. Vanguard, 1949. (6-up)
The biography of the famous scientist who worked in the deep jungle.

Gorsline, Marie. THE PIONEERS. Random, 1982. (4-up)
Carefully researched history of the pioneer travels to Oregon.

Grant, Neil. EXPLORERS. Silver, 1987. (4-up)
The story of several explorers including diaries and personal accounts of their travels.

Greene, Carol. MARCO POLO: VOYAGER TO THE ORIENT. Childrens, 1987. (4-up)
The famous travels of Marco Polo to Central Asia and China.

Grey, Elizabeth J. ADAM OF THE ROAD. Viking, 1942. (4-up)
The adventures of a traveling minstrel.

Gross, Ruth Belov. A BOOK ABOUT CHRISTOPHER COLUMBUS. Scholastic, 1987. (4-up)
A careful portrayal of Columbus' life and daring voyages.

Grover, Eulalie O. ROBERT LOUIS STEVENSON. Gale, 1940. (4-up)
The life of a prolific writer.

Hamm, Diane Johnston. GRANDMA DRIVES A MOTOR BED. Whitman, 1987. (K-3)
Grandma can't walk so she travels in her motorized bed.

Hammontre, Marie. ALBERT EINSTEIN, YOUNG THINKER. Macmillan, 1986. (4-up)
The biography of a famous scientist emphasizing his childhood.

Hankin, Rebecca. I CAN BE A MUSICIAN. Childrens, 1984. (K-4)
A book of early experimentation in music.

Hartman, William K. OUT OF THE CRADLE: EXPLORING THE FRONTIERS BEYOND EARTH. Workman, 1984. (4-up)
The exploration of space and the men who explore.

Haskins, James and Benson, Kathleen. SPACE CHALLENGER: THE STORY OF GUION BLUFORD. Carolrhoda, 1984. (2-6)
The story of the first black American in space.

Hawkes, Nigel. SPACE SHUTTLE. Watts, 1983. (4-up)
The colorful story of the space shuttle.

Heckart, Barbara. EDMOND HALLEY: THE MAN AND HIS COMET. Childrens 1984. (4-up)
The story of the scientist and the comet named for him.

Hellman, Hal. TRANSPORTATION IN THE WORLD OF THE FUTURE. Evans, 1974. (5-up)
Explores some possible modes of travel in the future.

HELLO RHYTHM. Miss Jackie, 1977. (K-3)
Activities, songs, and games to develop skills in young children.

Henry, Joanne L. ROBERT FULTON: STEAMBOAT BUILDER. Garrard, 1975. (2-5)
The story of the inventor of the steamboat.

Hill, Eric. UP THERE. Random, 1983. (K-3)
A simple book on outer space.

Hiller, B.B. and Neil. SPACECAMP. Scholastic, 1987. (4-up)
Four teenagers and a 12-year-old genius are accidentally launched into space.

Hilton, Suzanne. FASTER THAN A HORSE. Westminster, 1983. (5-up)
The exploration of the west with engine power.

Hilton, Suzanne. GETTING THERE. Westminster, 1980. (4-up)
How the pioneers of the frontier traveled without power.

Honig, Donald. THE JOURNAL OF ONE DAVEY WYATT. Watts, 1972. (4-up)
The story of life on a wagon train told through the journal of a young boy.

Irwin, Constance. STRANGE FOOTPRINTS ON THE LAND. Harper, 1980. (4-up)
The exploits of the Vikings in America.

Isadora, Rachel. NO, AGATHA! Greenwillow, 1980. (K-3)
A little girl traveling on a ship gets into lots of mischief.

Janeway, Elizabeth. THE VIKINGS. Random, 1951. (4-up)
Stirring stories of Eric the Red and Leif the Lucky.

Johnson, Crockett. HAROLD AND THE PURPLE CRAYON. Harper, 1981. (K-4)
Harold uses his purple crayon and a lot of imagination to go on an adventure.

Johnson, Crockett. A PICTURE FOR HAROLD'S ROOM. Harper, 1960. (K-4)
Harold makes a picture for his room with his magic crayon.

Johnson, Crockett. HAROLD'S TRIP TO THE SKY. Harper, 1981. (K-4)
Harold rockets into space.

Johnson, Jim. LASERS. Raintree, 1981. (4-up)
The development of the first modern laser.

Johnson, Spencer. THE VALUE OF ADVENTURE. Value, 1980. (K-up)
The story of Sacajawea, the Indian guide for the Lewis and Clark expedition.

Johnson, Spencer. THE VALUE OF BELIEVING IN YOURSELF. Value, 1976. (K-up)
The story of Louis Pasteur and his medical breakthroughs.

Johnson, Spencer. THE VALUE OF BOLDNESS. Value, 1986. (K-up)
The story of the explorer Captain Cook.

Johnson, Spencer. THE VALUE OF CURIOSITY. Value, 1978. (K-up)
The story of Christopher Columbus.

Johnson, Spencer. THE VALUE OF DEDICATION. Value, 1979. (K-up)
The story of Albert Schweitzer.

Johnson, Spencer. THE VALUE OF DISCIPLINE. Value, 1985. (K-up)
The story of Alexander Graham Bell.

Johnson, Spencer. THE VALUE OF FANTASY. Value, 1979. (K-up)
The story of Hans Christian Andersen.

Johnson, Spencer. THE VALUE OF GIVING. Value, 1979. (K-up)
The story of Beethoven.

Johnson, Spencer. THE VALUE OF IMAGINATION. Value, 1977. (K-up)
The story of Charles Dickens.

Johnson, Spencer. THE VALUE OF LEARNING. Value, 1978. (K-up)
The story of Marie Curie.

Johnson, Spencer. THE VALUE OF LOVE. Value, 1979. (K-up)
The story of Johnny Appleseed.

Johnson, Spencer. THE VALUE OF PATIENCE. Value, 1976. (K-up)
The story of the Wright brothers.

Johnson, Spencer. THE VALUE OF SAVING. Value, 1978. (K-up)
The story of Benjamin Franklin.

Johnson, Spencer. THE VALUE OF SHARING. Value, 1978. (K-up)
The story of the Mayo brothers.

Jonas, Ann. THE TREK. Greenwillow, 1985. (K-4)
A little girl and her friend must pass a water hole, a river, and a trading post on their imaginative trip to school.

Judson, Amelia. EXTRAORDINARY EGG-HUNT MACHINE. Little, 1987. (K-3)
Borris Bullfrog invents a machine to help the critters in their Easter-egg hunt. The results are disastrous.

Kanetzke, Howard W. AIRPLANES AND BALLOONS. Raintree, 1983. (2-5)
An introduction to the history, types, and uses of the airplane.

Kanetzke, Howard W. TRAINS AND RAILROADS. Raintree, 1983. (2-5)
The history and operation of trains.

Kellogg, Steven. THE ISLAND OF THE SKOG. Dial, 1986. (K-4)
A colony of mice sets sail to escape the cats of the city.

Kendall, Alan. MOZART. Silver, 1980. (4-up)
The story of a master composer.

Kerrod, Robin. THE CHALLENGE OF SPACE. Lerner, 1980. (3-6)
Surveys rockets, satellites, and space travel in question and answer form.

Kerrod, Robin. MISSION OUTER SPACE. Lerner, 1980. (3-5)
A question and answer form book concerning mans attempts to study space and other planets by probes and manned missions.

Kerrod, Robin. RACE FOR THE MOON. Lerner, 1980. (3-6)
Questions and answers about the moon and space missions to it.

Kerrod, Robin. SEE INSIDE A SPACE STATION. Watts, 1979. (5-up)
Gives readers a look into tomorrow.

Kettletramp, Larry. LASERS, THE MIRACLE LIGHT. Morrow, 1979. (6-up)
Traces the origins and uses of the laser.

Kherdian, David. BRIDGER: THE STORY OF A MOUNTAIN MAN. Greenwillow, 1987. (5-up)
Two years in the life of Jim Bridger, a trapper and explorer.

Kleiner, Art. ROBOTS. Raintree, 1980. (4-up)
The history of robotics including their development, functions, varieties in fiction, and their place in our future.

Kuklin, Susan. REACHING FOR DREAMS. Lothrop, 1987. (4-up)
Rehearsal of the Alvin Bailey Dance Company.

Lachenbruch, David. TELEVISION. Raintree, 1984. (4-up)
The history of the television.

Latham, Jean L. ANCHOR'S AWEIGH. Harper, 1968. (4-up)
The story of David Glasgow Farragut.

Latham, Jean L. CARRY ON MR. BOWDITCH. Houghton, 1955. (4-up)
Award-winning fictionalized biography of American navigator Nathaniel Bowditch.

Laycock, George. HOW THE SETTLERS LIVED. McKay, 1980. (5-up)
A look into the everyday life of the pioneers.

Lawson, Robert. BEN AND ME. Dell, 1973. (3-up)
Story of Amos the mouse who takes up with Benjamin Franklin and helps him with his inventions.

Leon, George. THE ELECTRICITY STORY: 2500 YEARS OF EXPERIMENTS AND DISCOVERIES. Arco, 1983. (4-up)
The history of electricity experimentation with some simple experiments.

Lepscky, Ibi. ALBERT EINSTEIN. Barrons, 1987. (K-4)
Simple text and colorful pictures tell the story of Albert Einstein.

Lepscky, Ibi. AMADEUS MOZART. Barrons, 1987. (K-4)
Simple text and colorful pictures tell of the master composer.

Lepscky, Ibi. PABLO PICASSO. Barrons, 1987. (K-4)
Colorful story of a creative artist.

Levine, Ellen. IF YOU TRAVELLED WEST IN A COVERED WAGON. Scholastic, 1986. (K-5)
Easy text and pictures describe life in a covered wagon.

Levitin, Sonia. JOURNEY TO AMERICA. Macmillan, 1973. (3-up)
Lisa Platt and her family go to America to escape the Nazis.

Linsley, Leslie and Aron, Jon. AIR CRAFTS. Lodestar, 1982. (4-up)
Instructions for making flying machines.

Lionni, Leo. GERALDINE THE MUSIC MOUSE. Pantheon, 1979. (K-3)
A flautist carved from cheese teaches Geraldine to make her own music.

Lord, Suzanne. A DAY IN SPACE. Scholastic, 1986. (K-3)
Easy book takes the reader aboard a space station with photos and interviews with astronauts.

McCall, Edith. STEAMBOATS TO THE WEST. Childrens, 1980. (4-up)
Exploration of the frontier by boat.

Maccarone, Grace. REAL ROBOTS. Scholastic, 1987. (K-4)
Over 20 photos of real working robots of the past and some of the dreams for their use in the future.

McGovern, Ann. THE SECRET SOLDIER. Scholastic, 1977. (4-up)
The story of Deborah Sampson, a girl who dressed as a man and became a soldier.

McPhail, David. FIRST FLIGHT. Joy, 1987. (K-3)
A young child's guide to air travel.

McPhee, Penelope and Raymond. YOUR FUTURE IN SPACE. Crown, 1986. (4-up)
Explores the space camp training program attended by hundreds of children every year.

Manes, Stephen. CHICKEN TREK. Dutton, 1987. (4-up)
Oscar and Dr. Prechtwinkle use wacky inventions and ingenuity to win a two-month long fried-chicken-eating contest.

Marri, Noemi Vicini. LUDWIG VAN BEETHOVEN. Silver, 1986. (4-up)
The story of a creative genius and why he is famous.

Marri, Noemi Vicini. MARCO POLO. Silver, 1985. (4-up)
The story of the man who explored Central Asia and China.

Marron, Carol. WHEN GREAT-AUNT ZELDA COMES. Raintree, 1985. (K-4)
Great-aunt Zelda is coming to take the little girl on safari with her but she has some misgivings.

Marshall, James. RAPSCALLION JONES. Viking, 1983. (K-4)
A fox turns writer to pay the rent.

Matthias, Catherine. I CAN BE A COMPUTER OPERATOR. Childrens, 1985. (K-3)

Maybery, D.L. GEORGE LUCUS. Lerner, 1987. (4-up)
The life of one of today's most successful writers and directors.

Maybery, D.L. STEVEN R. SPIELBERG. Lerner, 1986. (4-up)
The biography of an imaginative filmmaker.

Mayer, Mercer. ASTRONAUT CRITTER. Simon and Schuster, 1986. (K-3)
A lively tale of an unusual astronaut.

Meadowcroft, Enid L. BY WAGON AND FLATBOAT. Crowell, 1938. (5-up)
Travel to the west by various methods.

Measham, Terry. PICASSO. Silver, 1980. (4-up)
The story of a famous artist.

Measham, Terry. VAN GOGH. Silver, 1980. (4-up)
An easy story of a creative artist.

Miles, Betty. SINK OR SWIM. Avon, 1987. (4-up)
A city kid must find a way to survive summer camp in the country.

Millar, Cynthia. BACH. Silver, 1980. (4-up)
The story of a master composer.

Miller, Marilyn. ONE GIANT LEAP FOR MANKIND. Silver, 1986. (5-up)
Story of Neil Armstrong's landing on the moon.

Miller, Marilyn. THE TRANS-CONTINENTAL RAILROAD. Silver, 1985. (5-up)
A landmark connection of east and west.

Mitchell, Barbara. A POCKETFULL OF GOOBERS. Carolrhoda, 1986. (4-up)
The scientific efforts of George Washington Carver, especially his production of over 300 uses for the peanut.

Mitchell, Barbara. WE'LL RACE YOU HENRY. Carolrhoda, 1986. (4-up)
Brief biography of Henry Ford with emphasis on how he came to develop a fast, sturdy, and reliable racing car that led to the invention of the Model T.

Moche, Dinah. THE ASTRONAUTS. Random, 1979. (K-3)
Various spacecraft and the activities of astronauts as they get ready to take off.

Moche, Dinah. ASTRONOMY TODAY: PLANETS, STARS, SPACE EXPLORATION. Random, 1982. (4-up)
Exploration of space both from the Earth and above it.

Monchieri, Leo. CHRISTOPHER COLUMBUS. Silver, 1985. (4-up)
Why Christopher Columbus became famous.

Montgomery, Elizabeth Rider. WALT DISNEY: MASTER OF MAKE-BELIEVE. Garrard, 1971. (3-5)
Simple account emphasizing the rise to fame of this dreamer.

Moolman, Valerie. THE FUTURE WORLD OF TRANSPORTATION. Watts, 1984. (K-4)
Land, air, and water travel in the year 2050.

Moore, Eva. THE FAIR TALE LIFE OF HANS CHRISTIAN ANDERSEN. Scholastic, 1987. (4-up)
The intriguing biography of the popular author.

Moore, Eva. JOHNNY APPLESEED. Scholastic, 1987. (4-up)
The life of the explorer who set out to plant apple trees across the country.

Moore, Eva. THE STORY OR GEORGE WASHINGTON CARVER. Scholastic, 1987. (4-up)
The story of the plant doctor who is famous for his developments for the use of the peanut.

Morrow, Honore. ON TO OREGON! Morrow, 1926. (4-up)
The saga of the Sager children who crossed the prairies and mountains alone in 1848.

Munnz, Ludwig, and Haak, B. REMBRANDT. Abrams, 1966. (4-up)
Story of a famous artist.

Murphy, Jim. GUESS AGAIN: MORE WEIRD & WACKY INVENTIONS. Bradbury, 1986. (4-up)
Strange things people actually invented.

Nathan, Adele G. THE BUILDING OF THE FIRST TRANSCONTINENTAL RAILROAD. Random, 1950. (4-up)
The men and technology that connected the east and west.

Naylor, Phyllis Reynolds. HOW I BECAME A WRITER. Aladdin, 1987. (4-up)
Phyllis Naylor tells her story from her childhood until now.

Norton, Andre, and Donaldy, Ernestine. GATES TO TOMORROW. Macmillan, 1973. (4-up)
An introduction to science fiction stories.

Oldham, June. GROW UP CUPID. Delecorte, 1987. (4-up)
Mog becomes a romance writer while trying to cope with her dull boyfriend.

Pelta, Kathy. BRIDGING THE GOLDEN GATE. Lerner, 1987. (4-up)
The story of Joseph Strauss who designed the Golden Gate Bridge.

Peppe, Rodney. THE MICE AND THE CLOCKWORK BUS. Lothrop, 1987. (K-4)
The mouse family builds a bus despite the interference of the villainous rat.

Peppe, Rodney. THE MICE AND THE FLYING BASKET. Lothrop, 1985. (K-4)
The mouse family builds and flies their creation to an air show.

Petty, Kate. SPACE SHUTTLE. Watts, 1984. (K-3)
An easy book to begin with on the space shuttle.

Phelger, Frederick. ANN CAN FLY. Beginner, 1959. (K-3)
Ann tries her hand at flying a small plane.

Pinkwater, Manus. THE BEAR'S PICTURE. Dutton, 1984. (K-4)
The story of an artistic bear.

Pinkwater, Manus. THE BIG ORANGE SPLOT. Scholastic, 1977. (K-4)
When a seagull drops a can of orange paint on his house, Mr. Plumbean gets creative.

Provensen, Alice and Martin. THE GLORIOUS FLIGHT ACROSS THE CHANNEL WITH LOUIS BLERIOT. Viking, 1983. (K-5)
A historic flight by a French aviation pioneer.

Quackenbush, Robert. OH, WHAT AN AWFUL MESS. Prentice-Hall, 1983. (K-4)
The story of Charles Goodyear and his many failures and final success.

Quackenbush, Robert. QUICK, ANNIE, GIVE ME A CATCHY LINE! Prentice-Hall, 1983. (3-up)
The story of Samuel Morse and his telegraph.

Quackenbush, Robert. QUIT PULLING MY LEG. Messner, 1987. (3-up)
A tongue-in-cheek story about Davy Crockett with accurate details about his life.

Quackenbush, Robert. WATT GOT YOU STARTED, MR. FULTON? Prentice-Hall, 1982. (2-6)
The colorful biography of Robert Fulton.

Quackenbush, Robert. WHAT HAS WILD TOM DONE NOW? Prentice-Hall, 1981. (1-4)
Humorous text revels little known facts about Thomas Edison.

Quackenbush, Robert. WHO SAID THERE'S NO MAN ON THE MOON? Prentice-Hall, 1985. (2-6)
The story of Jules Verne.

Randolph, Blythe. AMELIA EARHART. Watts, 1987. (4-up)
The story of Amelia Earhart including the records she set and a poem she wrote.

Reigot, Betty Polisar. SPACE TRAVELER. Scholastic, 1987. (K-4)
This book puts the reader in the commander's seat of the space shuttle.

Richards, Dorothy. CHRISTOPHER COLUMBUS, WHO SAILS ON. Child's World, 1978. (K-4)
The simple story of Christopher Columbus.

Richards, Norman. DREAMERS & DOERS: INVENTORS WHO CHANGED THE WORLD. Macmillan, 1984. (4-up)
Includes short biographies of Goddard, Goodyear, Edison, and Eastman.

Ride, Sally. TO SPACE AND BACK. Lothrop, 1986. (4-up)
Woman astronaut tells about her trip to space.

Roberts, Sarah. THE ADVENTURES OF GROVER IN OUTER SPACE. Random, 1984. (K-3)
The muppet dreams of an adventure in space.

Rosen, Sidney. GALILEO AND THE MAGIC NUMBERS. Little, 1958. (6-up)
The story of the Italian astronomer who was persecuted for his beliefs about the Earth's relationship to the sun.

Rosenberg, Maxine. MAKING A NEW HOME IN AMERICA. Lothrop, 1986. (4-up)
The story of four children of families who have recently come to America.

Ross, Pat and Joel. YOUR 1ST AIRPLANE TRIP. Lothrop, 1981. (K-3)
An account of what ordinarily happens when you travel on a commercial airplane.

Rosten, William. THE DANGER MAZE. Wanderer, 1984. (4-up)
A choose-your-own-adventure book lets reader join in exploration.

Round, Graham. WHAT IF I WERE AN ASTRONAUT? Barrons, 1987. (K-3)
Young readers can imagine they travel to a distant planet.

Sabin, Louis. NARCISSA WHITMAN: BRAVE PIONEER. Troll, 1982. (4-up)
The life of a brave pioneer woman.

Sachs, Marianne. LEONARDO. Silver, 1981. (4-up)
The story of Da Vinci and his works and inventions.

Sadler, Marilyn. ALISTAIR IN OUTER SPACE. Prentice-Hall, 1984. (K-3)
Travel to space with Alistair.

Sadler, Marilyn. ALISTAIR'S TIME MACHINE. Prentice-Hall, 1986. (K-3)
Alistair builds a time machine for the science fair.

Sandak, Cass R. EXPLORERS AND DISCOVERY. Watts, 1983. (4-up)
Dictionary detailing the achievements of famous and letter-known explorers listing the geographical areas explored by each.

Schick, Eleanor. A PIANO FOR JULIE. Greenwillow, 1987. (K-4)
Julie is thrilled when her family buys a piano and her father teaches her to play.

Seevers, James. SPACE. Raintree, 1978. (K-3)
Exploration of the solar system and the achievements of several astronauts.

Selden, George. CRICKET IN TIMES SQUARE. Childrens, 1985. (4-up)
The story of Chester Cricket and his musical legs.

Sharmat, Marjorie. GILA MONSTERS MEET YOU AT THE AIRPORT. Macmillan, 1983. (K-3)
A young boy moving to the west tells all the terrible things that will happen to him.

Sharmat, Marjorie. WHAT ARE WE GOING TO DO ABOUT ANDREW? Macmillan, 1980. (K-4)
Flying with a new twist--no plane!

Shaw, Charles G. IT LOOKED LIKE SPILT MILK. Harper, 1977. (K-3)
Encourages use of imagination by presenting cloud formations.

Shecter, Ben. HESTER THE JESTER. Harper, 1977. (K-3)
Hester longs to become the first girl jester in her father's court.

Shields, Cornelia. AMY GOES TO THE MOON. Childrens, 1976. (K-4)
A young girl set out to visit the moon.

Simon, Seymour. MAD SCIENTISTS, WEIRD DOCTORS, AND TIME TRAVELERS IN MOVIES, TV, AND BOOKS. Lippincott, 1981. (2-4)
Science and adventure in different mediums.

Singer, Marilyn. LIZZIE SILVER OF SHERWOOD FOREST. Harper, 1986. (4-up)
Inspired by Robin Hood, Lizzie begins to scheme to follow her best friend Tessa to music school.

Small, David. PAPER JOHN. Farrar, 1987. (K-up)
Paper John moves to a little town by the edge of the sea and makes his living folding paper flowers, birds, and boats.

Smith, Howard E. DARING THE UNKNOWN. Harcourt, 1987. (2-up)
The true saga of U.S. space exploration.

Snyder, Zilpha. THE CHANGING MAZE. Macmillan, 1985. (K-4)
A shepherd boy braves the evil magic of a magician to save a pet lamb.

Sootin, Harry. 12 PIONEERS OF SCIENCE. Vanguard, 1960. (4-up)
Short biographies of 12 scientists and their works.

Spier, Peter. BORED, NOTHING TO DO. Doubleday, 1978. (K-4)
Two young boys get bored one day and decide to build a plane.

Spier, Peter. OH, WERE THEY EVER HAPPY! Doubleday, 1978. (K-4)
Three artistic children paint the house for their parents.

Stadler, John. HECTOR, THE ACCORDION-NOSED DOG. Macmillan, 1987. (2-5)
Hector the pointer becomes a musician of sorts when he bangs his nose and it turns into an accordion.

Stanish, Bob. THE UNCONVENTIONAL INVENTION BOOK. Good Apple, 1981. (3-up)
Strange inventions that people actually came up with.

Steig, William. DR. DE SOTO. Scholastic, 1984. (K-4)
A mouse dentist must devise different ways to treat his patients.

Stein, R. Conrad. THE STORY OF THE GOLDEN SPIKE. Childrens, 1978. (3-up)
The story of the men and technology that joined the east to the west.

Stein, R. Conrad. THE STORY OF THE LEWIS AND CLARK EXPEDITION. Childrens, 1978. (3-6)
The story of two explorers who helped open the West.

Stein, R. Conrad. THE STORY OF MARQUETTE AND JOLLIET. Childrens, 1980. (3-5)
A simple account of the exploration of the Mississippi River.

Stein, R. Conrad. THE STORY OF THE FLIGHT AT KITTY HAWK. Childrens, 1981. (3-5)
The story of the flight of the Wright Brothers.

Stein, R. Conrad. THE STORY OF THE SPIRIT OF ST. LOUIS. Childrens, 1984. (3-5)
The historic flight of Charles Lindbergh.

Stevens, Bryna. BEN FRANKLIN'S GLASS ARMONICA. Carolrhoda, 1983. (4-up)
The story of one of Franklin's musical inventions.

Stevenson, James. FAST FRIENDS. Greenwillow, 1979. (K-3)
A turtle and a snail go exploring on a skateboard.

Stoff, Joshua. THE STORY OF THE RUSLAM. Macmillan, 1986. (4-up)
Fiction story of the first manned exploration of Mars.

Swinburne, Laurence. RIDERS ON THE WIND. Raintree, 1982. (4-up)
Three men set out in a hot air balloon to trace Charles Lindbergh's trans-Atlantic route.

Talbot, Charlene Joy. THE SODBUSTER VENTURE. Macmillan, 1982. (4-up)
A young girl on her own on the Kansas prairie.

Taro, Oda. PANDA THE EXPLORER. Macmillan, 1976. (K-3)
Panda explores many places through his imagination.

Taylor, Mark. HENRY THE CASTAWAY. Macmillan, 1972. (K-3)
Henry goes exploring and gets stranded on an island.

Taylor, Mark. HENRY THE EXPLORER. Macmillan, 1976. (K-3)
Henry gets lost exploring.

Thatcher, Alida. PERILOUS JOURNEY TO THE TOP. Raintree, 1980. (4-up)
The story of a team of women who attempt to climb Annapurna in Nepal.

Thompson, Brenda, and Glesen, Rosemary. ROCKETS AND ASTRONAUTS. Lerner, 1977. (K-3)
Simple text about outer space exploration.

Thurman, Judith and David, Jonathan. THE MAGIC LANTERN: HOW MOVIES GET TO MOVE. Macmillan, 1978. (4-up)
The history of the movies from the Chinese people 1000 years ago to today.

Todd, Domke. GROUNDED. Knopf, 1982. (4-up)
Parker is determined to build and fly his own glider.

Tolkien, J.R.R. THE HOBBIT. Houghton, 1984. (4-up)
A magical adventure full of elves, gnomes, and hobbits.

Trefil, James S. LIVING IN SPACE. Macmillan, 1981. (6-up)
A look into life in outer space.

Turner, Dorothy WILLIAM SHAKESPEARE. Watts, 1985. (6-up)
Story of a playwright of renown.

Verheyden-Hilliard, Mary E. SCIENTIST AND ASTRONAUT, SALLY RIDE. Equity Inst., 1985. (K-4)
Easy biography of the first American woman in space.

Verne, Jules. AROUND THE WORLD IN 80 DAYS. Sharon, 1981. (4-up)
Classic story of exploration and adventure.

Vowles, Andrew and Mackie, Dan. ROBOTICS. Penworthy, 1986. (4-up)
The story of robotics and its use today and tomorrow.

Waddell, Martin. HARRIET AND THE ROBOT. Joy, 1987. (2-7)
Harriet builds a robot to help with her schoolwork.

Wayne, Bennett. (ed.) ADVENTURES IN BUCKSKIN. Garrard, 1973. (5-up)
The story of some of the explorers of the West.

Wegen, Ron. THE SKY DRAGON. Greenwillow, 1982. (K-3)
Children can use their imaginations while looking at the clouds.

Weil, Lisl. I, CHRISTOPHER COLUMBUS. Macmillan, 1983. (K-4)
Simple biography of Columbus.

Weiss, Harvey. HOW TO BE AN INVENTOR. Crowell, 1980. (K-4)
Become an inventor with the help of this book.

Westman, Paul. JACQUES COUSTEAU: FREE FLIGHT UNDERSEA. Dillon, 1980. (3-up)
Biography of the French oceanographer.

Westman, Paul. JOHN GLENN: AROUND THE WORLD IN NINETY MINUTES. Dillon, 1980. (3-up)
The story of one of America's earliest astronauts.

Westman, Paul. JOHN YOUNG: SPACE SHUTTLE COMMANDER. Dillon, 1980. (3-5)
Story of the astronaut who made 5 space flights in his 25-year career and became commander of the Space Shuttle Columbia.

Westman, Paul. NEIL ARMSTRONG: SPACE PIONEER. Lerner, 1980. (3-5)
A simple biography of the first man on the moon.

Westman, Paul. THOR HEYERDAHL: ACROSS THE SEAS OF TIME. Dillon, 1982. (3-up)
The story of a contemporary Norwegian explorer whose many voyages were undertaken to prove certain theories about the migration of ancient people.

White, E.B. STUART LITTLE. Harper, 1945. (4-up)
A young mouse sets out to explore the world.

Wilkinson, Sylvia. AUTOMOBILES. Childrens, 1982. (K-4)
An easy book on the automobile.

Williams, Jay. DANNY DUNN AND THE FOSSIL CAVE. Archway, 1979. (4-up)
Danny discovers and explores a cave.

Williams, Jay. DANNY DUNN AND THE SMALLIFYING MACHINE. Archway, 1971. (4-up)
Danny knows the professor is working on a new invention and is in danger, and when he and the professor accidentally switch on the machine, problems get larger.

Williams, Vera B. CHERRIES AND CHERRY PITS. Greenwillow, 1983. (K-3)
Bidemmi draws pictures and tells stories about cherries.

Williams, Vera B. MUSIC FOR EVERYONE. Greenwillow, 1984. (K-3)
Rosa organizes her friends into the Oak Street Band.

Willaims, Vera B. THREE DAYS ON A RIVER IN A RED CANOE. Greenwillow, 1981. (K-3)
A little girl describes a canoe trip with her cousins and their mothers.

Wisler, G. Clifton. BUFFALO MOON. Lodestar, 1984. (4-up)
To avoid being sent to school in New Orleans, a boy leaves his Texas ranch and stays with the Comanches for six months.

Wulffson, Don L. EXTRAORDINARY STORIES BEHIND THE INVENTIONS OF ORDINARY THINGS. Lothrop, 1981. (4-up)
The story behind the invention of soap, glasses, books, beds, and other items.

Wymer, Norman. INVENTORS. Silver, 1982. (4-up)
The story of several inventors including their diaries.

Young, Frank. AUTOMOBILE: FROM PROTOTYPE TO SCRAPYARD. Watts, 1982. (4-up)
Story of automobiles and their designers.

Young, Mike. THE ADVENTURES OF SUPERTED IN OUTER SPACE. Random, 1981. (K-3)
A cuddly crime fighter in outer space.

Zomberg, Paul G. COMPUTERS. Raintree, 1984. (4-up)
The history of the computer including their functions.

FILMOGRAPHY

Films are an enjoyable addition to any program. They can be used as an extra treat or even as the entire program. The titles listed below are just a few of the many available through your Regional Library Systems and film rental stores. Check your system's film catalog to find the titles available to you.

500 MILLION YEARS BENEATH THE SEA 24min. Doubleday Multimedia
Jacques Cousteau photographs the rare pearly nautilus and talks about pollution of the oceans.

THE 1812 OVERTURE 19min. Phoenix Films
The Seattle Youth Symphony rehearses the 1812 Overture with a coastal and forest setting for a background.

ABYSS 17min. Phoenix Films
In a few heart-stopping seconds, a mountain climber plunges one hundred feet into space to hang on the brink of death.

ADMIRAL BYRD 26min. Macmillan Films
The story of Richard Byrd, the first man to fly over the North Pole, and the leader of 5 expeditions to Antarctica.

AESOP'S FABLES 20min. Films Inc.
Bill Cosby stars in this film where two young children enter the world of Aesop.

APOLLO: JOURNEY TO THE MOON 26min. B&W
Covers all phases of Project Apollo.

ALEXANDER AND THE CAR WITH THE MISSING HEADLIGHT 13min. Time-Life
An animated fantasy about a young boy's adventures as he drives around the world.

AQUARIUM 10min. Perspective Films
Presents an unnarrated look at a variety of sea creatures.

ART FROM SCRAP 5min. International Film Bureau
Ideas to make articles from many objects such as paper bags, pipe cleaners, wire, string, and other materials.

ART IN GLASS 12min. Films, Inc.
An unusual creative process involving the skill of a painter and a glass blower is artfully explored.

ASTRONOUGHTS 21min. Sterling
The 6 1/2 gang converts an old boiler into a space ship.

AUTO BIOGRAPHY 26min. McGraw-Hill
The history of the horseless carriage from early beginnings to futuristic electronically-controlled highways.

AUTO-INTOXICATION 15min. McGraw-Hill
A recently retired businessman buys a car and it goes wild during his driving lessons.

AUTOMANIA 2000 10min. McGraw-Hill
Animated cartoon that tells about the invention of an automobile that can reproduce itself.

AN AWARD FOR MR. ROSSI 12min. Films, Inc.
Mr. Rossi makes a film. Displeased with the results, he tries to destroy it and instead creates a materpiece.

BALLET ROBOTIQUE 8min. Pyramid
A combination of modern machinery and ballet music.

THE BAND CONCERT 8min. Disney
Mickey Mouse is the conductor of a mad-cap band.

BATE'S CAR 15min. Arthur Mokin
An inventor converts his car to run on Methane gas which he makes himself.

BEN AND ME 16min. Disney
The story of Amos mouse and his friendship with Benjamin Franklin.

BEEP BEEP 12min. Churchill
Two boys build a wonderous crate car.

BOUND FOR FREEDOM 52min. Films, Inc.
Two boys set sail for the new world as bond servants.

THE BREMEN TOWN MUSICIANS 15min. Films, Inc.
Classic Grimm fairy tale about animals who set out to be musicians.

THE BRENDAN VOYAGE 58min. Films, Inc.
Did the Irish beat Columbus to America? Tim Severin and his crew attempt to recreate St. Brendan's 4,500 mile voyage in a leather boat.

BENJAMIN FRANKLIN 20min. Encyclopedia Britannica
Easy film introducing Franklin's world and inventions.

THE BRONZE ZOO 16min. Texture
A sculptress at work.

CAPTAIN SIALS 14min. Yellow Bison Prod.
A tale of a peanut who goes to sea in a shoe.

CAT AND THE FIDDLER 11min. PCI
The story of a fiddler and his dancing cat.

CHANGELING 9min. Phoenix
A young penguin is shunned by others because he has a red-orange shirt.

CHARLES LINDBERGH 27min. Official Films
Presents events in the life of Lindbergh.

CHILDREN'S AUTHOR: JUDY BLUME 17min. Films, Inc.
A close look at one of America's most popular authors.

CHIPS AHOY! 7min. Disney
Chip and Dale become sailors on a boat stolen from Donald Duck.

CHORD SHARP 10min. Texture
The story of a street musician turned rock star who always plays one chord wrong.

CHRISTOPHER COLUMBUS 30min. Time-Life
Documentary provides insight into the kind of man Columbus was.

CLAYMATION 17min. Pyramid
Entertaining and informative film shows how clay animation films are made.

CLOSED MONDAYS 8min. Pyramid
Academy award-winning film uses clay animation to tell the story of a drunk who stumbles into an art gallery in which the paintings come to life.

COLLAGE: EXPLORING TEXTURE 13min. International Film Bureau
Illustrates the making of collages by children 5-8.

COLOR IT LIVING 30min. Mar/Chuck
Follows artist Martin Glen Loates through some of his most famous compositions from sketch to finished paintings.

THE CONCERT 12min. Pyramid
Film fantasy about a street musician who uses a London pedestrian crossing as a giant keyboard.

COPLAND PORTRAIT 29min. National AV Center
A joyful celebration of Aaron Copland and his music.

COW ON THE MOON 16min. International Film Bureau
Teased by a mischievous boy, a brainy girl builds a rocket and fools him into thinking he is on the moon.

THE CRICKET AND THE VIOLIN 5min. Journal Films
A cricket uses his violin to save some trees.

THE CRICKET IN TIMES SQUARE 26min. Xerox
Chester cricket makes music on his legs.

DARE THE WILDEST RIVER 19min. Pyramid
Using small wooden dories and rubber rafts, a group of men set out to explore the Colorado River.

DAWN FLIGHT 22min. Pyramid
The story of a man and his obsession with soaring.

DAY THE COLORS WENT AWAY 10min. EBEC
Unnarrated film about a sloppy artist whose colors rebel and run away.

DEBORAH SAMPSON: A WOMAN IN THE REVOLUTION 16min. BFA Educ.
Disguised as a soldier, Deborah Sampson fought in major battles of the Revolutionary War.

DELICIOUS INVENTIONS 16min. Films, Inc.
Film excerpt from "Willie Wonka and the Chocolate Factory" puts the viewer into the inventing room.

DESIGN TO MUSIC 5min. International Film Bureau
Presents the art of drawing to music.

DOG WATCH 16min. Disney
Pluto is a sea dog in charge of looking after the ship.

DR. HEIDEGGER'S EXPERIMENT 15min. Macmillan Films
A Hawthorne story of the elixir of youth.

THE DOODLE FILM 11min. Learning Corp. of America
Case history of a doodler is explored with mock seriousness.

DRAW ME AN ELEPHANT 6min. Doubleday Multimedia
Demonstration of simple methods of drawing unbounded by the confines of realism.

THE EAGLE HAS LANDED 29min. National AV Center
An account of man's first moon landing in 1969.

FILM: THE ART OF THE IMPOSSIBLE 27min. Learning Corp. of Amer.
Uses film clips to show the art of the filmmaker.

FLIGHT OF THE FRIENDSHIP 7 20min. Sterling
The historic journey of America's first man in orbit.

FLIGHT OF THE GOSSAMER CONDOR 16min. Churchill Films
The story of Dr. Paul MacCready who experimented, built, and flew the first successful manpowered aircraft.

GRANDMA MOSES 24min. A.F. Films
An intimate visit with Grandma Moses, self-taught painter.

HAILSTONES AND HALIBUT BONES 14min. Sterling Ed.
Animated drawings illustrate Mary O'Neill's poems demonstrating how a writer uses color to show feelings.

HAMMY HAMSTER: TIME MACHINE 10min. Heritage Films
The invention of a machine that stops time.

HAROLD AND THE PURPLE CRAYON 8min. Weston Woods
Harold draws a scene with a magic purple crayon.

HAROLD'S FAIRY TALE 8min. Weston Woods
Harold draws an enchanted garden inhabited by a Giant Witch.

HENRY FORD 26min. MaGraw-Hill
Portrait of the inventor of the assembly line process.

THE HOBBIT 78min. Xerox
Bilbo Baggins the hobbit goes exploring with the dwarves.

HOW THE FIRST LETTER WAS WRITTEN 8min. Learning Corp. of Amer.
The story of a little cave girl who writes the first letter.

ICARUS 14min. Wombat
Captures the experience of hang-gliding.

ICARUS MONTGOLFIER WRIGHT 23min. United Artists
Asleep in his quarters on a rocket-launching base, an astronaut dreams of the early pioneers of flight.

IDA MAKES A MOVIE 32min. Learning Corp. of Amer.
Ida makes a film for a filmmaking festival.

IMOGEN CUNNINGHAM: PHOTOGRAPHER 20min. Time-Life
Presents a look into the life of a pioneer portrait photographer.

INCREDIBLE SAN FRANCISCO ARTIST'S SOAPBOX DERBY 24min. Phoenix
Pays tribute to the 104 Bay Area artists who created the artist built "car" exhibition/derby.

ISABELLA AND THE MAGIC BRUSH 14min. Film Fair Comm.
Isabella wants to paint but cannot afford a brush. So she wishes for one and everything she paints becomes real.

ISLAND OF THE SKOG 13min. Weston Woods
A group of mice escapes the dangers of the city to an island in the sea.

IT COULDN'T BE DONE 57min. Films, Inc.
Tells the story of men of vision and diligence who created feats of artistry and engineering that seemed impossible.

IT'S A HOBBY FOR HARVEY 10min. Beacon Films
Harvey Pollock makes music as a champion whistler.

JEDEDIAH SMITH 52min. Time-Life
The story of the first man to cross America overland.

JOHN MUIR'S HIGH SIERRA 21min. Churchill
Follows the trails first walked by naturalist Muir.

JOURNEY NORTH 13min. Canadian Travel Films
Film full of variety and surprises of a remote frontier appealing in its spacious rugged beauty.

KITES TO CAPSULES 5min. FAA
Unnarrated film traces man's attempts to fly from early attempts to space travel.

KITTY HAWK TO PARIS. THE HEROIC YEARS 29min. Learning Corp.
The formative years of American aviation are recalled in the exploits of its heroes.

LEGEND OF JOHNNY APPLESEED 17min. Disney
The classic history of John Chapman, who in the early 1800's roamed the Ohio frontier planting apple trees.

LIFELINE IN SPACE 14min. Pyramid
A fictionalized account of what may be the scientific reality of the future.

LITTLE MERMAID 25min. Pyramid
Animated version of the Hans Christian Andersen fairy tale.

LITTLE TIM AND THE BRAVE SEA CAPTAIN 11min. Weston Woods
Tim stows away on an ocean steamer to have adventures.

LOG RAFT: A NORWEGIAN SUMMER STORY 25min. BFA, Ed.
Three children build a log raft to explore the fjords and encounter danger.

THE LOPSIDED WHEEL 30min. Time-Life
The development of the wheel from its invention to its use in computer machinery.

MAGIC AND MUSIC 17min. Disney
A magical tour to the realm of music and to the visual fantasies that music can inspire.

THE MAGNIFICENT MUSIC MACHINES 15min. Films, Inc.
A fast history of mechanical music makers.

MARIE CURIE--A LOVE STORY 32min. Centron Films
Begins with Marie's meeting of Dr. Pierre Curie and highlights their discovery of two new elements.

MAURICE SENDAK 14min. Weston Woods
A visit with children's book author-artist Maurice Sendak.

MELODY 8min. Oxford
A bird is rejected by her family because she sings instead of chirping. She runs away and sings with an orchestra.

MERRILY WE ROLL ALONG 52min. Xerox
Groucho Marx's humor adds to this highly entertaining film about the history of the automobile.

MR. GOSU, THE CELLIST 19min. International Film Bureau
Animated puppets tell story of dedicated cellist.

THE MOLE AND THE CAR 6min. Phoenix
The mole discovers the automobile and sets off to get one.

THE MOLE AND THE MUSIC 6min. Phoenix
The mole sets out to make a record from scratch.

THE MOLE AND THE ROCKET 9min. Phoenix
The mole accidentally gets stuck in a rocket and heads for faraway adventures.

MOLE AS A CHEMIST 7min. Phoenix
Mole finds a chemistry set and experiments with it.

MOLE AS A PAINTER 11min. Phoenix
Mole decides to protect his forest friends by becoming a painter.

MONITOS: PORTRAIT OF AN ARTISAN FAMILY 11min. Film Fair
Family in Mexico shown making clay Monitos (little people.)

MOONWALK 40min. Learning Corp. of Amer.
Commissioned by NASA to capture the historic event.

MOSAIC 6min. International Film Bureau
A Norman McLaren Film using a drawn-on-the film technique of dots making mosaic pictures.

MOTOR MANIA 8min. Disney
Humorous story of the incredible personality changes which can take place when someone gets behind the wheel.

MOUSE ON THE MAYFLOWER 52min. Macmillan Films
The story of a brave little mouse voyaging to the New World.

MURAL ON OUR STREET 15min. McGraw-Hill
The creation of a mural for a neighborhood building by children and adults.

THE NEW ALCHEMISTS 29min. Benchmark
Small group of young scientists and their families work an experimental plant and fish farm using organic fertilizers, solar heat, and a windmill.

THE NEW CAR 10min. Eastin-Phelan
Flip the Frog buys a new car to impress his girl and has a series of hilarious adventures.

ONCE UPON A MOUSE 26min. The Company
Excerpts from Walt Disney classics pay tribute to the man.

ONCE UPON A TIME THERE WAS A DOT 8min. Contemporary Films
Traces the evolution of mechanical technology in which a dot becomes a circle, a wheel, and finally evolves into a complex machine.

A PICTURE FOR HAROLD'S ROOM 8min. Weston Woods
Harold has many adventures when he draws a picture for his room with his magic purple crayon.

PICTURE GALLERY 10min. Connecticut Films
Ten famous paintings come to life.

THE PILGRIMS 22min. Encyclopedia Britannica
Authentic sets and period costumes bring the pilgrims to life.

POETRY FOR FUN: TRULIER COOLIER 11min. Centron
Live and animated interpretations of eight humorous poems for and about children.

QUEST FOR FLIGHT 23min. Encyclopedia Britannica
Traces the history of flight from Icarus to supersonic transports.

THE REAL WEST 54min. McGraw-Hill
Recreates the American West as it really was when the pioneers moved westward to fill in the last frontiers.

ROUND TRIP TO MARS 6min. National Film and Video Center
Woody Woodpecker pretends he is a Martian and baffles a scientist.

THE SAGA OF WINDWAGON SMITH 13min. Disney
Exploring the west in a new way--a prairie schooner outfitted with a mast, sails, and other seagoing equipment.

SONG OF THE PRAIRIE 22min. MacMillan Films
Puppets are used to present the classic American western stagecoach journey.

SPACEBORNE 15min. Pyramid
Rarely seen film footage from NASA's archives.

A SPECIAL GIFT 47min. Time-Life
Story of a 14-year-old boy who loves to dance.

A STORY, A STORY 10min. Weston Woods
Tells how Anase, the spider man, buys stories of Nyame, the sky god, so they can be retold on earth.

STORY OF MY LIFE: HANS CHRISTIAN ANDERSEN 27min. MacMillan Films
Andersen's life is re-created through words from his diary, his drawings, and photos.

STUART LITTLE 53min. McGraw-Hill
Live action film based on E.B. White's book.

SUSIE, THE LITTLE BLUE COUPE 9min. Disney
The life story of Susie, the little blue car.

TEST PILOT DONALD 8min. Disney
Chip and Dale hijack one of Donald's remote controlled jet airplanes and take it for a spin.

THOSE INCREDIBLE DIVING MACHINES 22min. Churchill
Cousteau traces man's historic attempts to probe the ocean's depths.

TOOT, WHISTLE, PLUNK, AND BOOM 16min. Disney
Professor Owl traces the origin of musical instruments.

A TRIP TO THE MOON 10min. Stone Film Library
A re-release of the early Georges Melies film dated 1902.

UGLY DUCKLING 15min. Weston Woods
The classic Andersen tale.

VANISHED VIKINGS PART 1: ERIK THE RED 15min. Journal
Shot on location in Greenland and Iceland, this film traces Erik's travels.

VANISHED VIKINGS PART 2: WHERE DID THEY GO? 15min. Journal
Theories on the Viking disappearance.

VANISHING PRAIRIE SERIES: PIONEER TRAILS... 14min. Disney
Explores the area between the Mississippi River and the Rocky Mountains including the wagon trails made by the pioneers.

VOYAGE OF THE BRIGANTINE YANKEE 50min. Films, Inc.
A family sets sail on a double-masted square-rigged ship around the world.

W.A. MOZART 25min. International Film Bureau
Fascinating film presents Mozart's music and life.

WHAT ON EARTH 10min. McGraw-Hill
Martians visit earth and mistake the automobile for the intelligent species.

WHEN MAGOO FLEW 8min. G.B. Media
Nearsighted Mr. Magoo mistakes an airplane for a movie theater.

WILD SCIENCE 51min. Encyclopedia Britannica
Peter Falk describes some of the interesting areas being explored by scientists today.

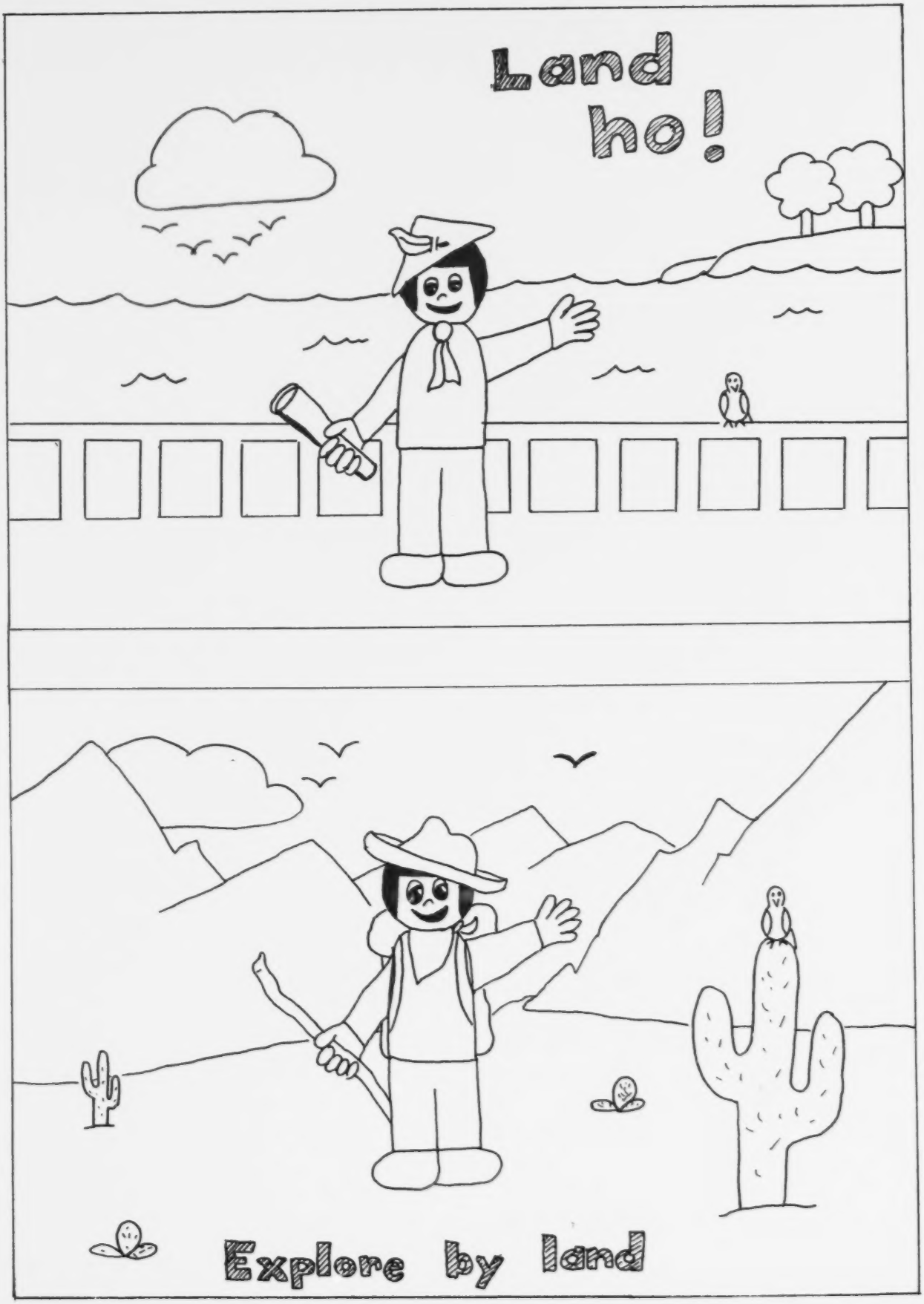
WIND IN THE WIRES 22min. Centron
History of aviation in Europe between 1909 and 1919.

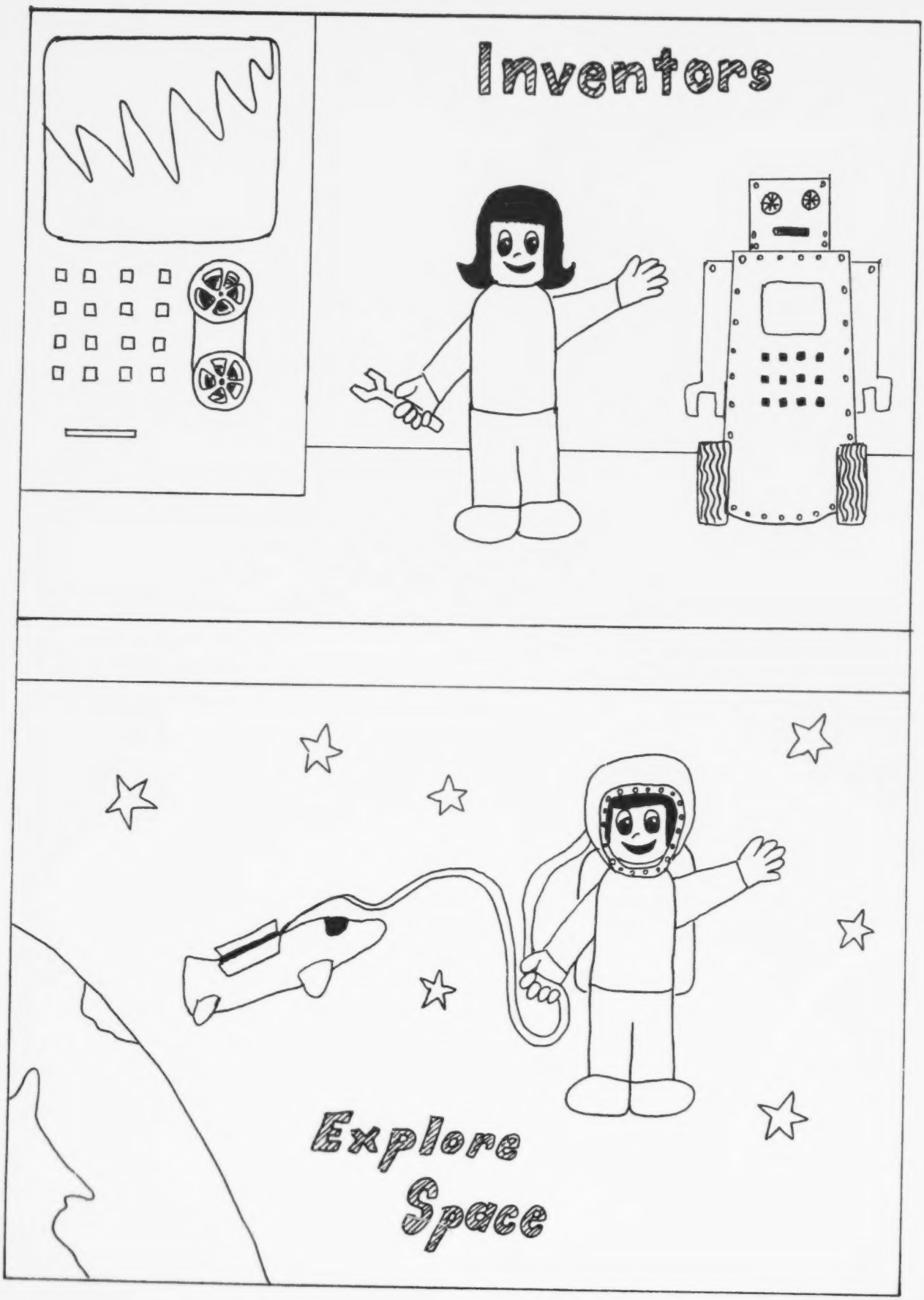
THE WIZARD WHO SPAT ON THE FLOOR 48min. Time-Life
Intriguing study of the life of Thomas Edison.

WORLD BENEATH THE SEA 23min. Paramount
A scientist explores the world of the sea.

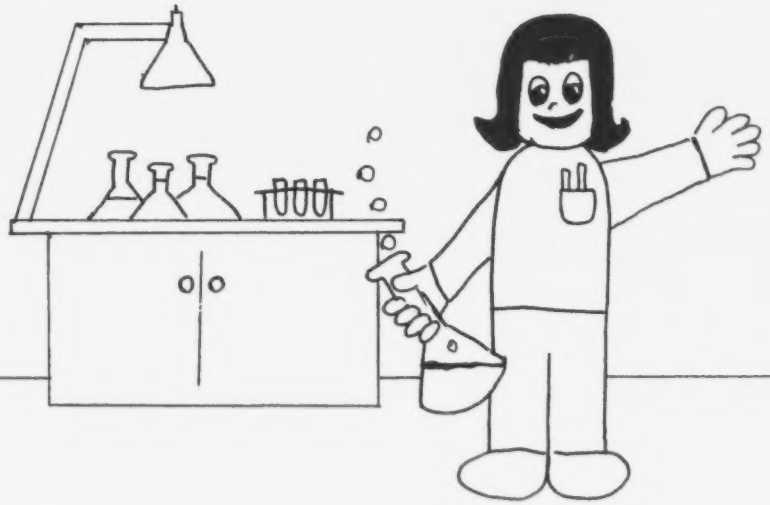
BULLETIN BOARDS

Bulletin boards can be as elaborate or as simple as you want. The following pages give some ideas for bulletin boards to use with your programs. One board for each section is provided. You will notice that the main feature of all the boards is the same man. By using different props the man can quite easily become a woman. If you use different props and backgrounds you will be able to use many of the same items on most of your boards. This will help cut down on the time you spend producing the materials. Whenever possible use the bulletin boards as a display area for some of the items produced by the children during the reading program. Children love to see their work on display. The patterns for the boards are included after the general set-ups. The patterns can be blown up to any size needed as all are to scale.


Land ho!
Explore by land

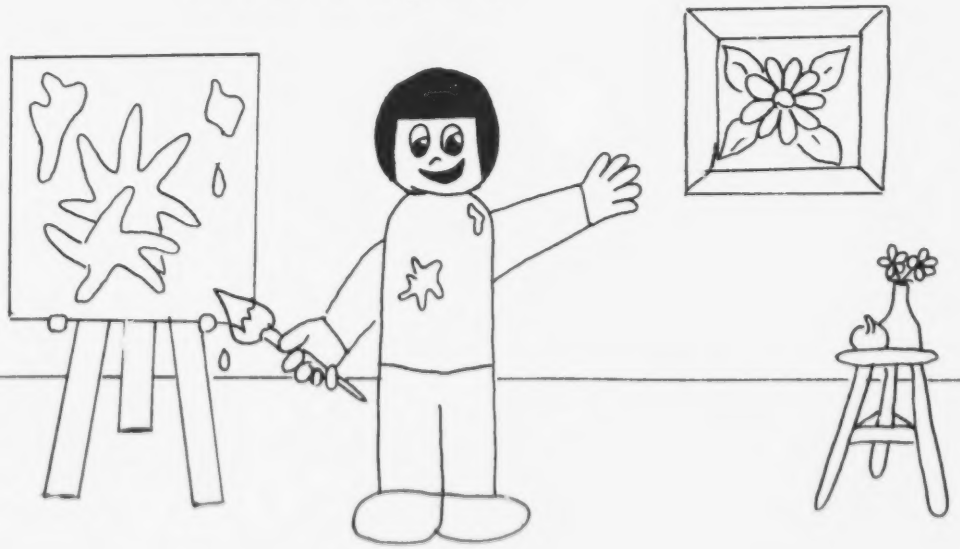

Inventors
Explore
Space

Scientists

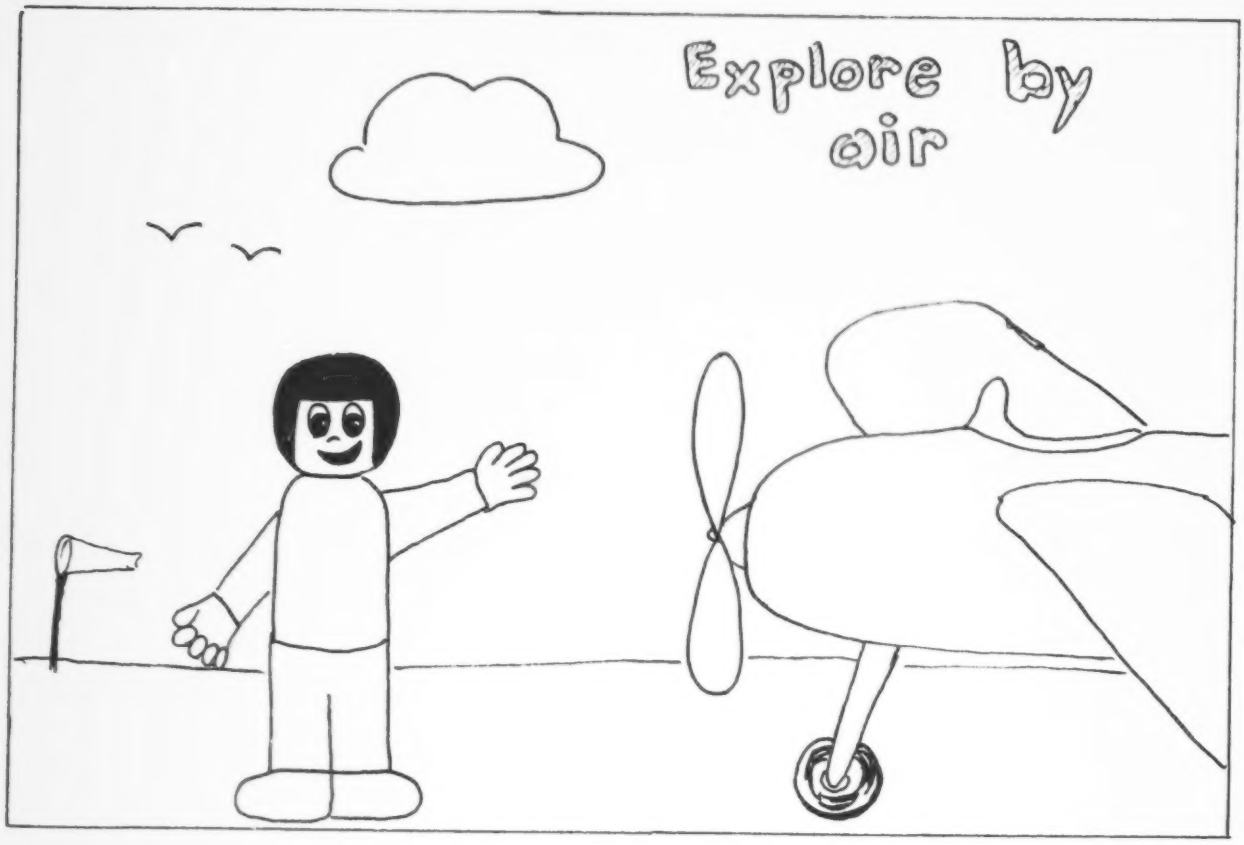


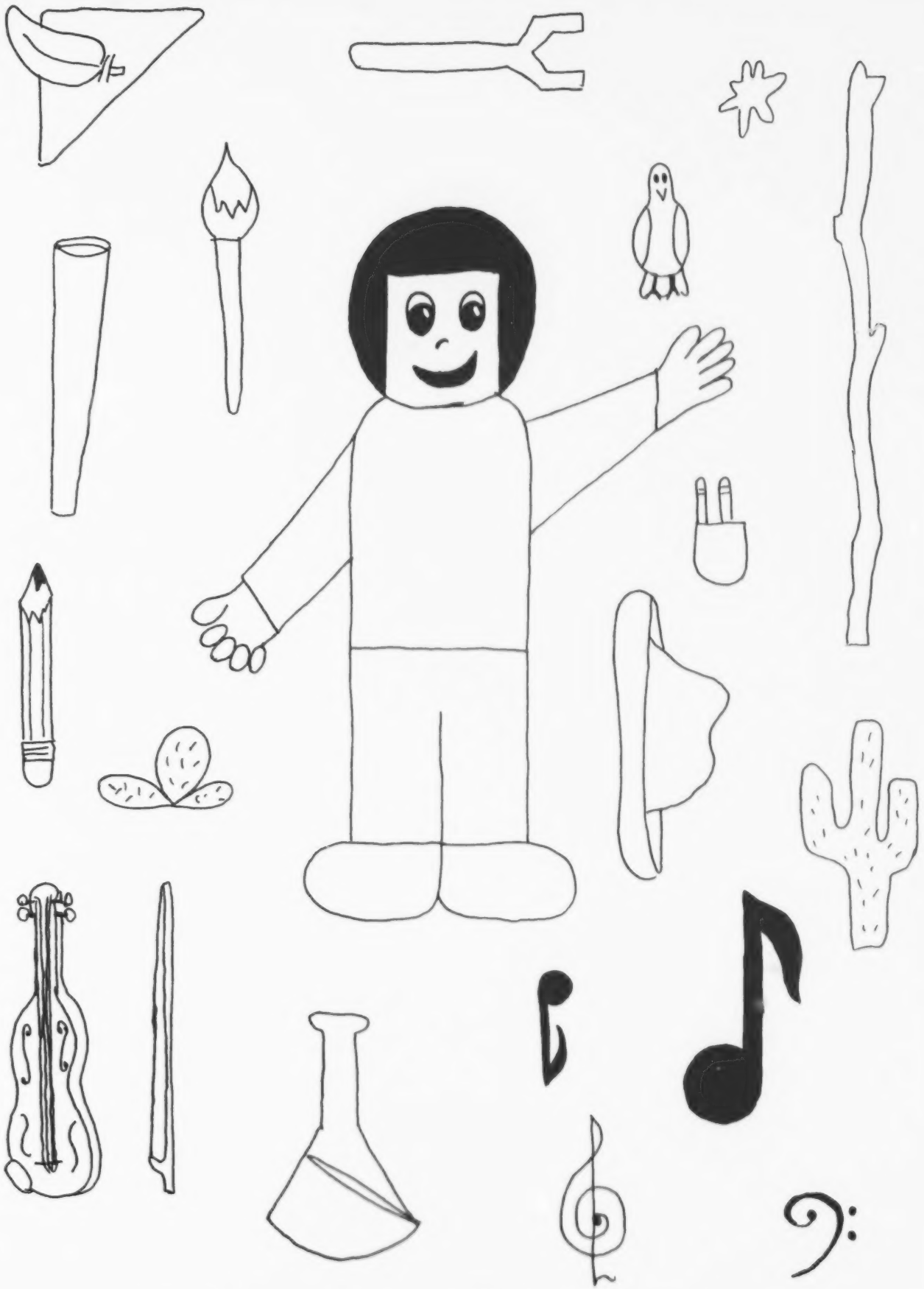
$$X = z^{5} \div 2.74$$
$$\pm \int_{3}^{5} \frac{42.9}{27} =$$
$$\frac{294.4}{\pi^{2}} + (p^{7} \cdot 32)$$

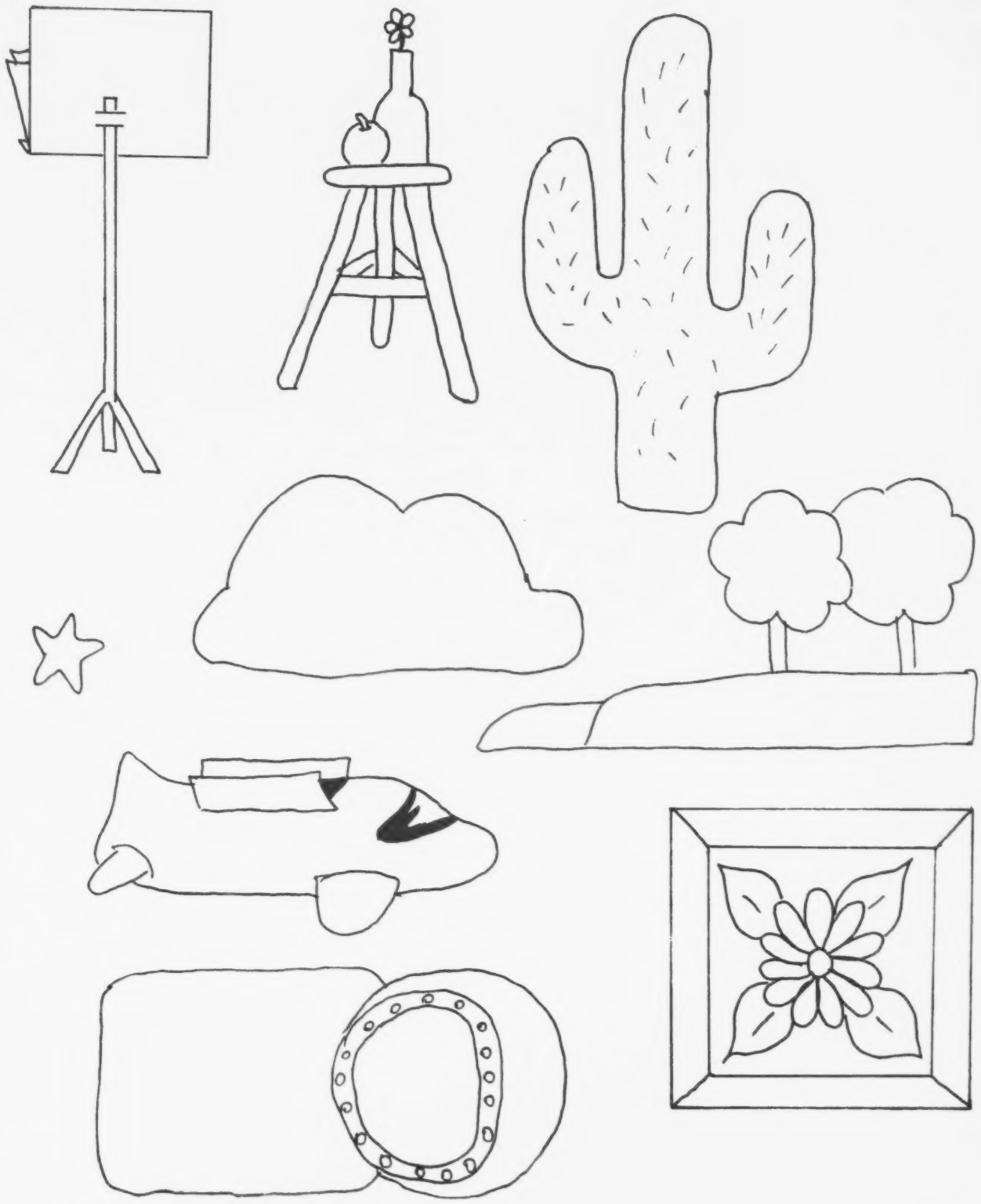
Artists

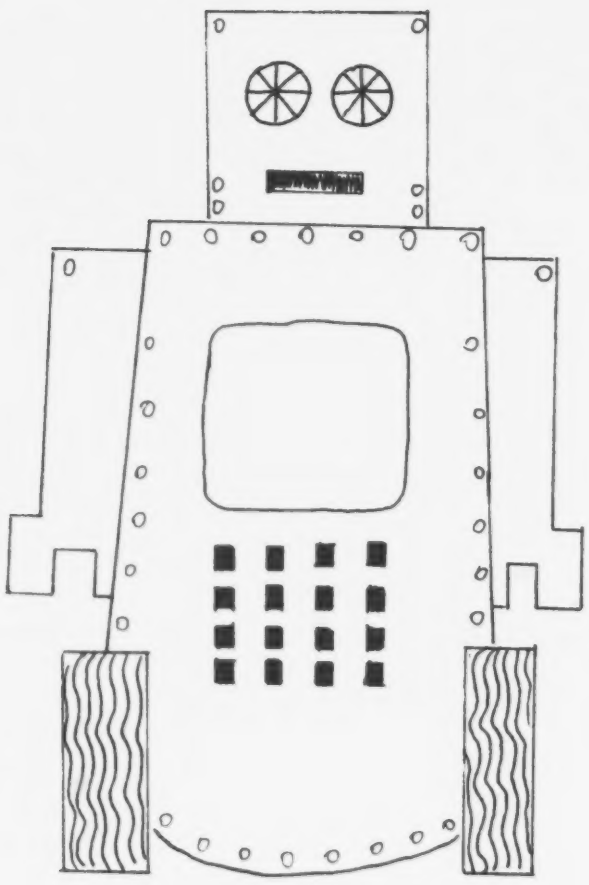


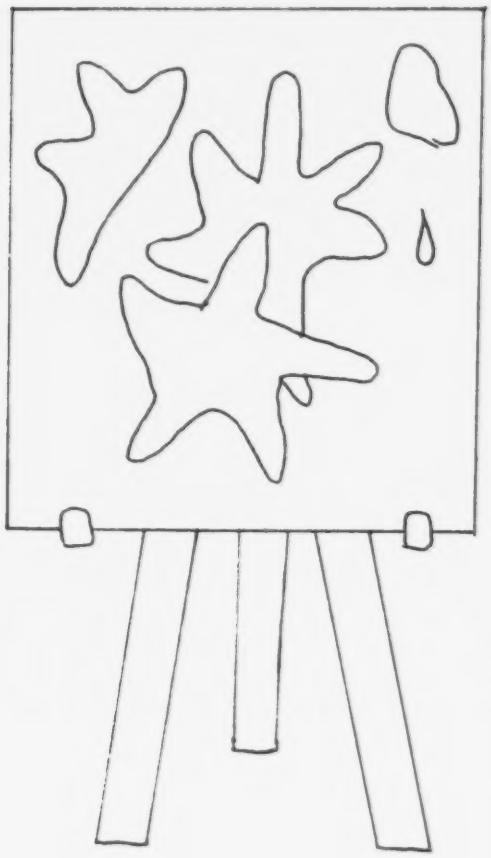
Writers
poem
Book Jacket
poem
Book Jacket
poem
Once upon a time. . .
Book Jacket
Musicians

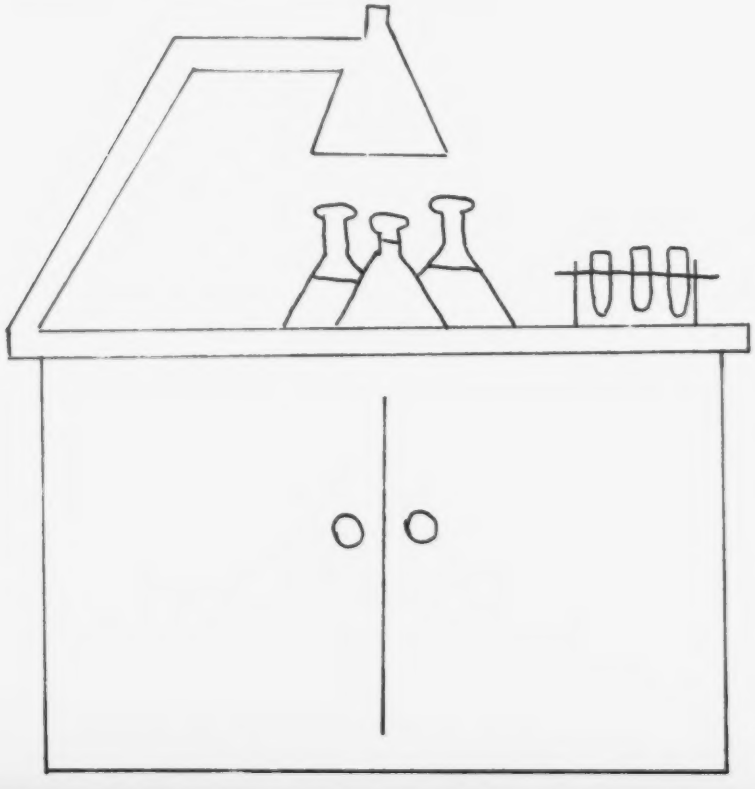

Explore by
air

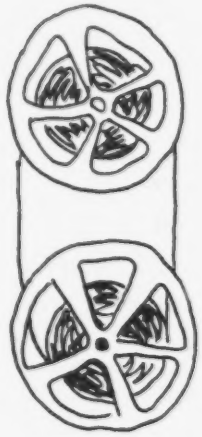


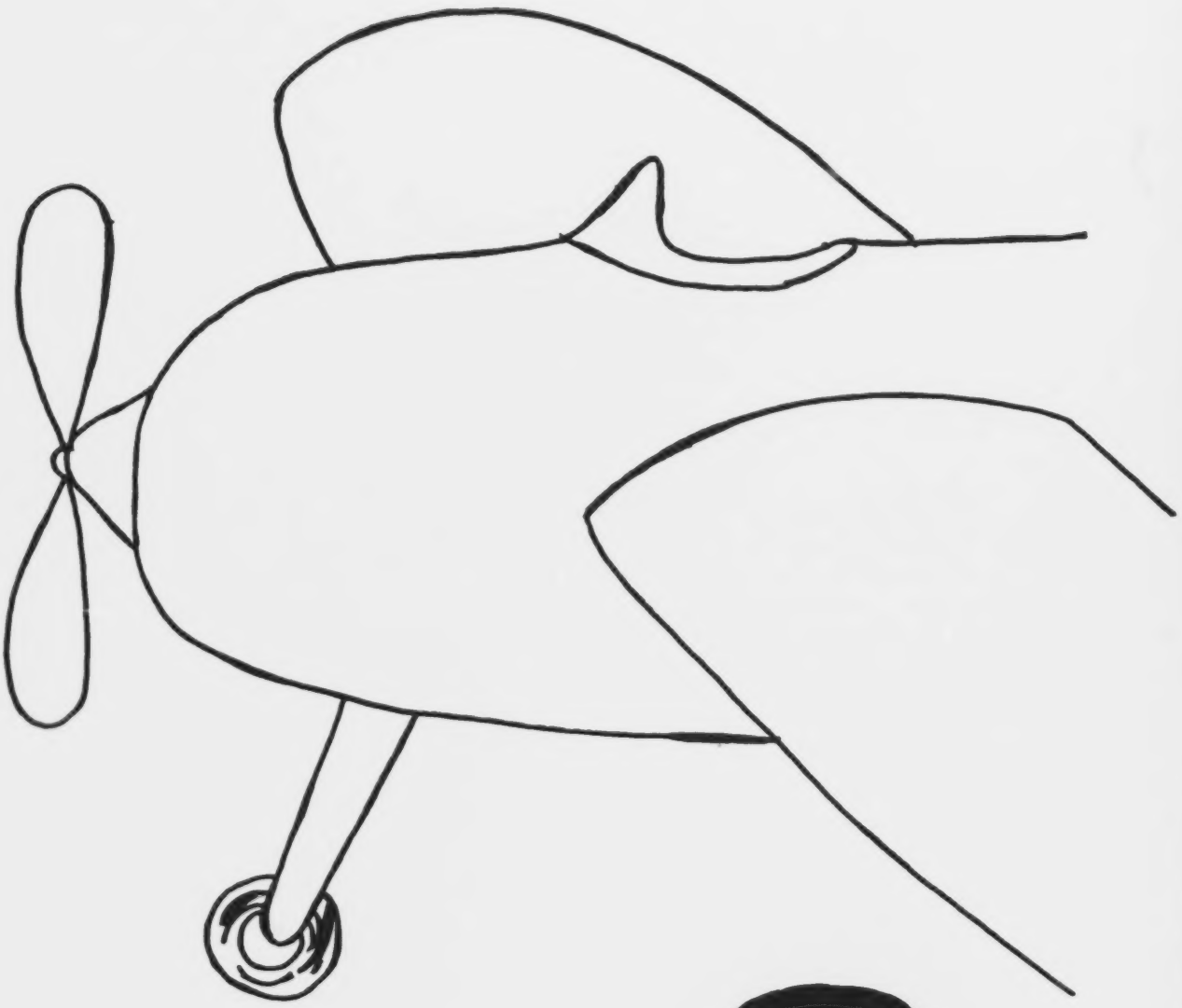


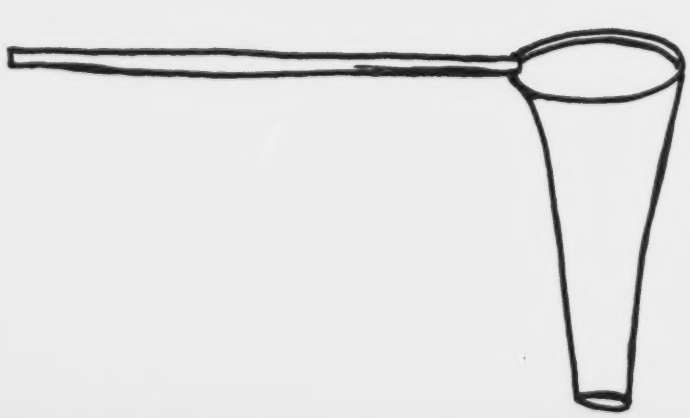












TRAILBLAZERS, STARGAZERS

TRAILBLAZERS,
STARGAZERS

TRAILBLAZERS, STARGAZERS

TRAILBLAZERS,
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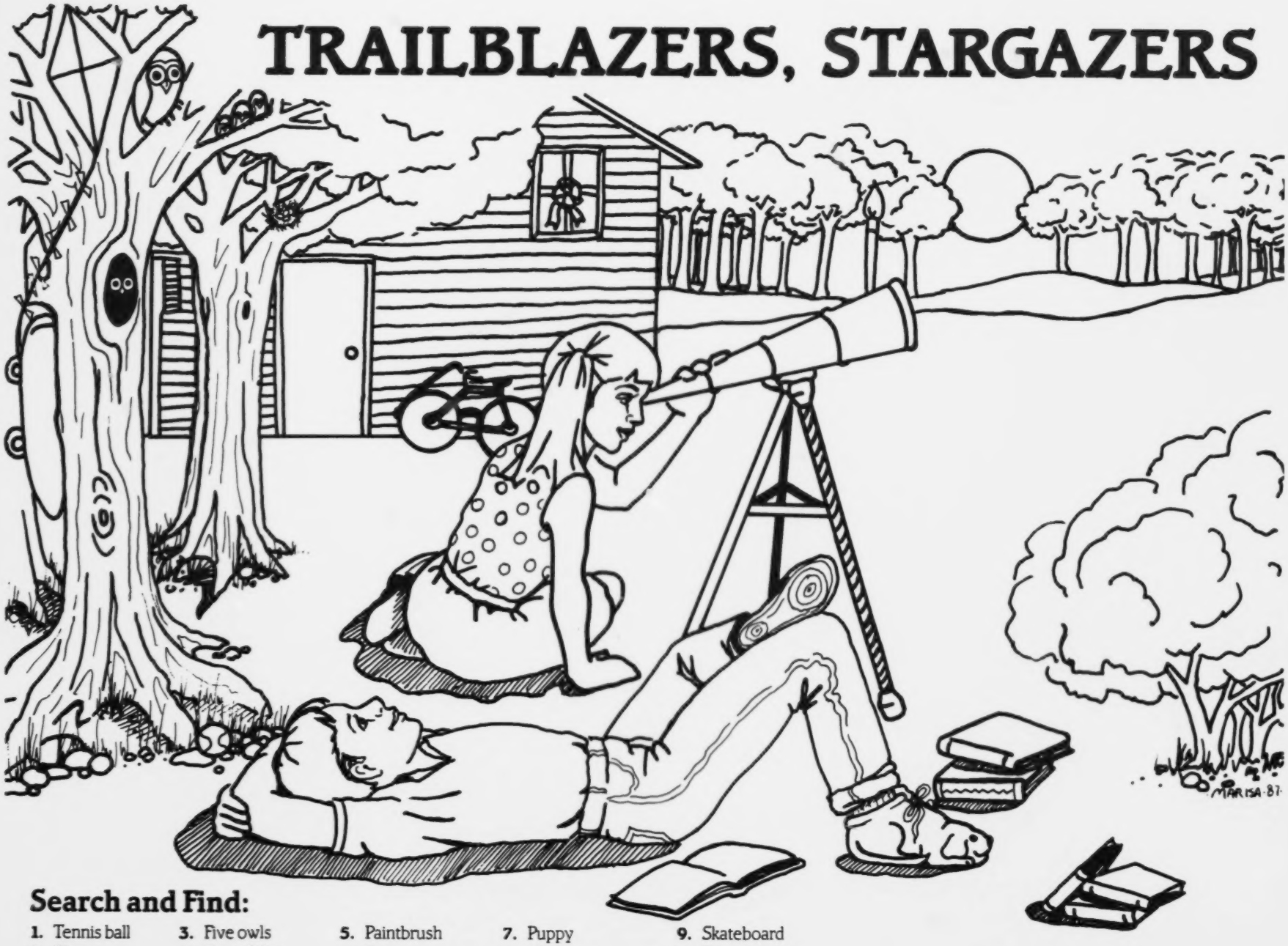
TRAILBLAZERS, STARGAZERS

TRAILBLAZERS, STARGAZERS



Search and Find:

1. Tennis ball
2. Kite
3. Five owls
4. Armadillo
5. Paintbrush
6. Baton
7. Puppy
8. Glasses
9. Skateboard
10. Toothbrush